JPRS-UHR-84-019 17 September 1984

USSR Report

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USSR REPORT Human Resources

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GOSPLAN OFFICIAL DISCUSSES LABOR AVAILABILITY FOR NEW PROJECTS

Moscow SOTSIALISTICHESKIY TRUD in Russian No 4, Apr 84 pp 20-27

[Article by V. Kulakov, subdepartment chief, Gosplan USSR: "Problems and Ways of Supplying Manpower for New Industries and Capacities"]

[Text] Every year hundreds of industrial enterprises and projects are put into operation in our country. In the 10th Five Year Plan, for example, more than 1,260 were built. In the current five year plan, capital investments for these purposes exceed 700 billion rubles. Among the new enterprises which will be built are such giants as the Oskol Electrometallurgy Combine imeni L.I. Brezhnev; the Krasnoyarsk Heavy Excavator Plant; the Chardzhou Oil Refinery; the Tobolsk Petrochemical Combine; power engineering projects in Siberia and Central Asia; atomic electric power stations in the European part of the country; and others. According to data published in 1983 by the USSR Central Statistical Administration [CSA] on the results of fulfilling the State Plan for the Economic and Social Development of the USSR, nearly 200 industrial enterprises have been put into operation, with fixed assets valued at 146 billion rubles—which is six billion more than in 1982.

In order to provide economic equilibrium, it is important to not only complete the planned projects on time, but also to assimilate the new industrial capacities in the established periods. Consumers are waiting for their production, for it has already been accounted for in contracted obligations for deliveries. Among the measures which facilitate the timely commissioning of underway projects, an important role is assigned to supplying them will skilled cadres in accordance with the manning document.

According to data from selected investigations by CSA USSR--every year, of all the enterprises for whom the period for assimilating the planned capacities has expired, every fourth one was not staffed with skilled workers. In this connection, in the 10th Five Year Plan, a number of newly commissioned enterprises were unable to operate at full capacity--including the underway projects at the Chimkent "Fosfor" Production Association imeni October Revolution, the Orenburg Silk Production Association, the Saratov plant for heavy gear-cutting machinery, the Tula Combine Plant, the Krasno-yarsk Truck and Tractor Trailer Plant, and others. The situation with respect to supplying cadres was especially complex at en erprises and new construction projects of Minlegprom [Ministry of Light Industry] USSR, which "hold the record" as it were, for not assimilating industrial

capacities. For example: at the Ulan Ude knitted outerwear factory, which was put into operation in 1979, only 26 per cent of its production capacity had been assimilated by 1 October 1983 (with 15-month periods), while its personnel strength amounted to 84.9 per cent. The Artemovsk knitted underwear factory was to have been operating at full capacity at the start of 1982; however, in October 1983 only 34 per cent of its capacity had been assimilated, while its personnel strength was at 85 per cent. Such examples are not unique.

Such situations come to pass basically because of the fact that certain ministries, departments, and union republic councils of ministers are not working out plans on a timely basis for the newly commissioned enterprises and projects for training and increasing the skills of the personnel at vocational-technical educational institutions and at related enterprises. And they do not provide for transfer of part of the skilled workers from existing enterprises, but tend to recruit unskilled manpower from the local able-bodied population which is not employed in social production. In 1981 for example, the requirement for personnel of the most important underway projects and enterprises was met by only 31 per cent by means of organized assignment of personnel. Thus, 69 per cent of the industrial production personnel had to be recruited by the enterprises themselves. It is surprising that by far the most significant proportion of the enterprises which have not assimilated their industrial capacities due to lack of personnel were located in the regions of the European part of the country where, as is well-known, there is a sharp drop in the growth of the able-bodied age group in the population, the basic source for the formation of labor resources.

Taking into consideration the complex situation which has been created in providing the underway projects with manpower for 1981-1985, in May of 1981 the board of Gosplan USSR proposed that the USSR ministries developed measures for the 11th Five Year Plan which would ensure that all enterprises and projects which were to be put into operation would be supplied with skilled cadres in the established period. It was stressed that it is very important to coordinate the opening of industrial enterprises with construction of a non-industrial nature: apartment houses, social and cultural facilities, and vocational-technical educational institutions. Their construction should be completed by the time the enterprises are to be put into operation.

Many ministries approached the fulfillment of this task in a completely responsible manner. A number of them have worked out a procedure for estimating number of skilled workers for enterprises being built, and staffing these projects with personnel is continuously monitored. Thus, the Ministry of Power Machine Building approved and sent to its enterprises a plan for the vocational education of the working cadres for projects being newly put into operation in 1984. Operating under special supervision are the Volga-Don Atommash Production Association imeni L.I. Brezhnev; the Leningrad Metal Plant production association; the Kramatorsk Energomashspetsstal' plant; and others. The enterprises cited have vocational-technical schools attached to them. There are also plans to transfer to them a

portion of the skilled workers from related enterprises. And a system has been established whereby these enterprises must report to the ministry every month on the manpower situation for the newly-commissioned capacities.

The continuous monitoring by USSR Minchermet [Ministry of Ferrous Metallurgy] of the training of skilled cadres for the first section of the steel-rolling mill at the Zhdanov Metallurgy Plant had a great deal to do with the commissioning of this project in January of this year.

In a number of the regions of the country the local party and soviet organs are rendering a great deal of help in bringing personnel strength up to par with the newly-commissioned industrial capacities. In Krasnoyarsk Kray, for example, they have taken control of construction of the heavy excavator plant. A central staff has been established at the kray CPSU committee for coordinating operations. Also established was a kray coordinating council for those taking part in plant construction. These organizations are monitoring the pace of construction of the enterprise and the housing and cultural-domestic facilities for its workers, and are monitoring the supply of personnel as well.

Labor organizations have an increased role in rendering assistance to the newly-commissioned projects. They are sending them workers according to a system of organized recruiting and of employing the population. The proportion of organized sources in the plans for supplying cadres to new industrial projects in 1982 increased by 8.6 points as compared with 1978, and amounted to 32.8 per cent. Gosplan USSR and Goskomtrud [State Committee for Labor and Social Problems] USSR have set the task to increase this proportion in the near future up to 50 per cent—in the RSFSR up to 54 per cent and in the BSSR up to 71 per cent.

However, one cannot say that the decision of the board of Gosplan USSR was the turning point in supplying newly-commissioned projects with skilled cadres of operators. According to data from Goskomtrud USSR, this work is as before, still not satisfactory, in Minlegpishchemash [Ministry of Machine Building for Light and Food Industry and Household Appliances], Mintsvetmet [Ministry of Nonferrous Metallurgy], Minstankoprom [Ministry of the Machine Tool and Tool Building Industry], Minselxkhozmash [Ministry of Tractor and Agricultural Machine Building], Mintyazhmash [Ministry of Heavy and Transport Machine Building], and Minlesbumprom [Ministry of the Timber, Pulp and Paper, and Wood Processing Industry], of the USSR. These and other ministries are still planning to meet the additional personnel requirements at newly-commissioned projects 80-90 percent by virtue of recruiting workers in the localities. Specifically, that is how they propose to bring the manpower up to strength at the Novo-Solikamsk potassium plants of Minudobreniy [Ministry of Mineral Fertilizer Production] in Perm Oblast; at the Stoylensk ore-dressing combine of Minchernmet USSR in Belgorod Oblast; at the Machine Building Plant imeni F.E. Dzershinsky of Mintyazhmash in Belakovo, Saratov Oblast; and at power engineering projects, including the Kursk AES and the Neryungri GRES of Minenergo [Ministry of Power and Electrification] USSR: etc. And their requirements for personnel are considerable. For the Novo-Solikamsk potassium plants alone they need more than 3,500 people; for the others, 500-700 people each.

Thus, in spite of some positive accomplishments, the problem is still an urgert one. And its solution depends on the combined actions of the planning and labor authorities, of the ministries, departments, associations, enterprises and organizations. In our opinion, now is the time to bring increasing pressure on the processes of releasing manpower, which is possible only when the plans for labor productivity are unconditionally fulfilled in all sectors of material production. As is well known, the 26th CPSU Congress has set the task for achieving not less than 85-90 percent of the growth in national income by virtue of increasing social labor productivity by 17-20 per cent. But in the branches of the national economy whose enterprises are situated in the regions with labor shortages, all growth in the volume of industrial production, construction and installation work and rail shipments must be achieved not only without an increase but even with a reduction in the number of working people so that they would have the opportunity to send the skilled cadres which have been released to staff the newly-commissioned enterprises and capacities.

In order to do this, there must be broader application of acquired expertise in releasing manpower, and new forms must be found for such work. As an example, the method used at the Azot Production Association imeni 50th Anniversary of the USSR in Shchekino has been adopted in one form or another by more than 12,000 industrial enterprises. In 1982 alone, by virtue of combining professions and increasing the volume of auxiliary tasks, about 250,000 workers at these enterprises have been released for other jobs; of these, more than 80,000 were sent to newly-commissioned production. The importance of disseminating the Shchekino methods was once again stressed in the decree of the CPSU Central Committee: "On the Initiative of the Yaroslavl Oblast Party Organization on Achieving in the 11th Five Year Plan Growth of Industrial Production Without Increasing the Number of Workers."

The release of manpower will be supported by the socialist competition now underway in the working collectives to fulfill the tasks set at the December (1983) CPSU Central Committee Plenum—to achieve a 1.0 per cent above—plan increase in labor productivity, and to reduce production costs by an additional 0.5 per cent. The forms and methods of implementation can vary: for example, reduction in workplaces on the basis of certifying them, which is being used at the Dnepropetrovsk Combine Plant imeni K.E. Voroshilov, was noted at that same CPSU Central Committee Plenum; or, reduction in the labor intensiveness of product output, as is being done at the Tbilisi Aircraft Plant imeni Dmitrov. There is news of other intiatives by the working collectives as well, especially on the widespread use of the brigade form of labor organization, which is directed in the final ananysis toward an absolute or relative release of manpower.

It remains in the 11th Five Year Plan to increase the role of wages and bonuses at enterprises which are operating with fewer personnel, for which one has to accelerate the practical implementation of the decree of the CPSU Central Committee and USSR Council of Ministers, "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Work Quality." The measures stipulated in the decree for increasing the degree to which wages depend on increasing labor productivity must become effective levers for releasing and redistributing manpower.

This would also be helped by establishing for industrial enterprises a task for absolute reduction of the number of workers by 1-2 per cent anually, which would permit transferring to newly-commissioned enterprises no less than 500,000 skilled workers per year. However, in order to actually provide such an absolute release of workers, the ministries, departments, associations, enterprises and organizations would have to work out specific measures for supporting the fulfillment of the approved assignments.

Strengthening the process of releasing workers presupposes improvement of the organized redistribution of manpower. At the present time its entire scope does not exceed 40 per cent of the total worker transfers. Therefore the basic portion of those who are transferred is made up of people who are changing their place of work out of dissatisfaction with the conditions, the nature or the content of their work, with the amount of wages or for other socio-economic reasons; they are the ones who leave work by their own preference and who find other work independently.

In the country thus far, the redistribution and retraining of working cadres which have been released from enterprises and construction projects in connection with technical progress, exhausted supplies of natural resources and completing the construction of large-scale projects, is still not being handled satisfactorily. Thus, while preparing draft plans for 1981-1985, many ministries and departments did not present the appropriate proposals to Gosplan USSR. In this connection it seems to us that the USSR ministries and departments, and the union republic councils of ministers, when developing their five-year plans, must determine and report to their subordinate enterprises the number of workers and employes to be released; and the enterprises should present these data to the labor authorities so that those persons can be placed in jobs on a timely basis. It would also be expedient to give some thought to higher incentives for encouraging the transfer of released workers to a new place of work--which would guarantee them the same amount of pay, and so on.

This year preparations will begin for planning limits for the number of workers and employes separately, for operating and newly commissioned enterprises, as was stipulated by the decree of Gosplan USSR, GKNT [State Committee for Science and Technology], Goskomtrud USSR, Gosstroy USSR, Gosprofobr [State Committee for Vocational and Technical Education] USSR, CSA USSR, and the AUCCTU of 30 November 1982: "On the Work Program for Solving the Problem of Meeting the Needs of the National Economy for Labor Resources." Establishing these limits, beginning in 1986, will support perfecting the forms of releasing manpower, and its organized redistribution.

Such forms of the organized redistribution of manpower as organized as organized recruitment, agricultural resettlement, voluntary youth call-ups and others need to be brought into conformity with the conditions of economic development at the present stage. And they must take into consideration the changes which have taken place both in the qualitative makeup of the people who are applying for assistance in finding work, and in the nature of the needs of the enterprises for manpower. This is also necessary from the point of view of strengthening the processes of territorial redistribution of labor resources, the complexity of which lies in the fact that the sources of manpower do not coincide with the need for it.

In this connection it would be sensible to examine the possibility of using a form of redistribution such as industrial relocation. This is not a simple matter, but it also is not new. As early as the 1930's the Council on Labor and Defense posed the questions of intraindustry transfer of manpower from operating enterprises to new ones. Under present conditions such redistribution does not have a significant volume. Therefore, it would follow that the specialists at Gosplan USSR, Goskomtrud USSR, at the ministries and departments, should be thinking about the possibilities of expanding its scale, forms and methods in order to at least partially satisfy in this manner the needs for personnel at newly-commissioned enterprises and projects.

The temporary duty form of redistribution of workers is still not being used sufficiently, although the decree of the USSR Council of Ministers of 15 July 1981, "On Guarantees and Compensation Upon Traveling to Another Locality for Work," defined the benefits for those sent on temporary duty to other enterprises and construction projects. In this manner greater possibilities arise for rendering skilled assistance in assimilating new production capacities.

An indispensible condition for improving the possibilities for releasing, and for ensuring the redistribution of manpower of newly-commissioned and operating enterprises is the availablility of well-appointed housing accommodations and socio-cultural facilities at these sites. It is extremely important that the ministries and departments of the USSR and the administrators of the associations, enterprises and organizations carefully and effectively allocate those important assets which the state distributes for construction of apartment houses, schools, hospitals, and children's pre-school institutions in the new construction areas. However, it is still quite common that the erection of such facilities is given second priority. In a number of cases sufficient funds are not allocated for their construction. As a result, additional difficulties arise with furnishing manpower to the enterprises, and personnel turnover increases. Analysis reveals, for example, that in 1982 nearly half of the workers who had arrived at the country's most important new construction project, abandoned them chiefly due to the unsatisfactory housing and cultural-domestic conditions. Thus, at the Achinsk Oil Refinery, the personnel staffing situation of which amounted to 85.4 per cent, of 800 workers who had been accepted, over 300 persons left their jobs, including 290 because of lack of housing. At the Pishchemash Plant in Izyaslav in Khmel'nitskiy Oblast, which was commissioned in the third quarter of 1982, the supply of personnel was only 50 per cent. The plan envisages construction of a 745-unit apartment complex, two 440-bed dormitories, a children's combine accommodating 340 persons, and a vocational-technical school. However, when the enterprise started to operate, only 119 apartments had been completed and one 220-bed dormitory. The lack of personnel at the Krasnoyarsk Combine Plant of Minsel'khozmash, where one-fifth of the workers had no housing and 530 persons could not find a place for their children in the childrens's pre-school institutions, is the result of similar causes.

But, in those places where they show concern for the workers' living conditions, stable labor collectives are established, and the new industrial capacities are introduced and assimilated on time. The experience of the

Dneproshina Production Association imeni 25th CPSU Congress of Minnefte-khimprom [Ministry of the Petroleum Refining and Petrochemical Industry], USSR, in Dnepropetrovsk, is an example of such concern. In 1980 new production was introduced there. Frankly, it wasn't easy, in comparison with other branches. The supervisors at the enterprise, taking into consideration the fact that manpower reserves in the city were exhausted, set their course to solving the social tasks: at the same time the plant was being expanded, apartment houses were constructed, including hotel-type accommodations, and kindergartens, nurseries and domestic services enterprises. And the results were soon to be felt--production was introduced and assimilated in accordance with the approved periods.

Evidently it is sensible to assign greater responsibility for putting enterprises into operation only in combination with the planned socio-domestic and cultural facilities.

The problem of supplying newly-commissioned enterprises with personnel has its territorial peculiarities. It remains acute in Siberia and the Far East. And this is understandable, inasmuch as it is to those places that the country is displacing its industrial power. These regions possess an ever-increasing role in supplying the national economy with petroleum, as, coal, non-ferrous metals, cellulose, paper and other kinds of industrial production. It is here that future industrial construction will take place, and new cities and towns will appear. A great deal has been done to attract personnel to the areas of Siberia and the Far East. Regional wage coefficients for workers and employes have been introduced and increased here. In a number of important industrial branches, including coal, ferrous and nonferrous metallurgy, the textile industry and certain branches of machine building, as well as rail transport, in construction and for certain categories of agricultural workers--remuneration is provided for length of service, and other benefits are employed in order to promote population growth in these regions. Thus, from 1971-1980, the population in Siberia and the Far East increased by 12.2 per cent, while in the USSR as a whole the rate was 6.5 per cent, and for the period 1981-1983 the corresponding figures were 3.4 and 1.3 per cent. The population influx has helped to improve the supply of manpower for new enterprises.

However, in spite of the measures taken in the given regions, they have not yet provided the necessary conditions for keeping the personnel assigned there. Therefore, a significant part of the population which arrives in the eastern regions of the country goes back; that is, for the time being, a relatively high rate of reciprocal migration is being observed. Reducing it and keeping the personnel assigned there is the genuine path to assuring manpower for the new projects in the referenced regions. The decisions of the 26th CPSU Congress also point to creating conditions for assigning personnel to the newly-commissioned enterprises, and especially in the regions of Siberia and the Far East. A higher rate of construction, as compared with the central regions of the RSFSR, of apartment houses, hospitals and children's pre-school institutions, accelerated development of municipal services, trade and public catering are stipulated in the tasks for the 11th Five Year Plan as well; their unconditional fulfillment should

be considered the minimum program. Along with strengthening the socioeconomic reorganization of these regions, it is necessary in the long-term to improve the supply of sophisticated labor-saving equipment and technology to the region's enterprises, in order to decrease the need for manpower at the new projects.

There are also certain difficulties in bringing the personnel strength up to par at newly-commissioned industries and capacities in regions with a surplus of labor, especially in the republics of Central Asia, Kazakhstan, and the Trans-Caucasus. The reason here is the same-an acute shortage of skilled cadres. In this connection, the plan for 1981-1985 envisages higher rates of training for young people at the vocational-technical educational institutions in these republics. Thus, whereas in the country as a whole, enrollment in the schools of Gosprofobr USSR in the 11th Five Year Plan is increasing by 7.0 per cent in comparison with the 10th Five Year Plan, in the Kirgizh SSR there will be a 13 per cent increase. In the Tadjik SSR enro .1ment necessary in the long-term to improve 29 per cent; in the Uzbek SSR, by 32 per cent; and in the Turkmen SSR, by 47 per cent. However, it would not be correct to reduce the problem of staffing the new enterprises in the given region only to training skilled workers. It is much more complex, and includes the solution of such problems as increasing the mobility of the root population, increasing the general educational and culturel level of the workers, developing the services sphere in small and medium-sized cities and in the rural area, overcoming the historically-grounded tendency of the local population toward agricultural work, and others. Specific measures for improving the use of labor resources in the republics of Central Asia. Trans-Caucasus and the southern regions of Kazakhstan were outlined in the above-mentioned decree of 30 November 1982.

An extremely argent problem for assimilating newly-created industrial capacities is training skilled cadres for them. And its role is constantly increasing in connection with the fact that new enterprises are being equipped with modern, complex manufacturing equipment, the operation of which requires highly-skilled workers.

The system of training cadres which has taken shape in the country, with proper organization of the process, permits staffing the newly-introduced capacities on a timely basis. On the basis of machine-building enterprises alone there are now about 500 vocational-technical educational institutions in operation, in which over 100,000 persons master their professions every year. At the same time, an average of 350,000 workers per year are trained directly on the job in the machine-building branches. Minenergomash [Ministry of Power Machine Building], Minavtoprom [Ministry of the Automotive Industry], Mintyazhmash [Ministry of Heavy and Transport Machine Building] and other ministries have been quite successful in training cadres. However, in general this work is still not at a sufficiently high level. On the average, among the ministries and departments, the proportion of graduates of vocational-technical schools sent to the newly-commissioned enterprises does not exceed 15 per cent; in Minrybkhoz [Ministry of the Industry | Minenergo and Minlesbumprom USSR, the proportion amounts to about 10 per cent; and in Minkhimmash [Ministry of Chemical and Petroleum Machine Building], Minpribor [Ministry of Instrument Making, Automation Equipment and Control Systems], and Minneftekhimprom USSR, it is even less.

In spite of this many ministries are still not paying the required attention to development of vocational-technical education. For example, enrollment of young people at the base vocational-technical schools of machine-building enterprises is continually declining. Whereas in 1977 the plan for enrollment in these schools was fulfilled by 101.6 per cent, in 1982 it was only 92 per cent fulfilled. As a result, in 1982 instead of 111,000 skilled workers, 104,000 came to the enterprises, or 82 per cent of that planned.

Questions of timely construction of vocational-technical educational institutions also demand serious attention. During the first two years of the current five-year plan, the machine-building ministries assimilated in all 55 per cent of the capital investments for this purpose, and commissioned 9,400 student positions, instead of the 17,000 called for by the plan, or 55.2 per cent. In this connection it is necessary to take stricter measures to put pressure on the construction organizations which are obligated to put the educational institutions into operation in combination with projects of industrial significance, socio-cultural, domestic and housing projects. When planning new enterprises, the ministries and departments must provide for establishing production training centers at the enterprises, for training and retraining the workers, and increasing their skills in accordance with the branch standards. It would be expedient not to approve the justifications for the construction of new enterprises at an estimated cost of 3 million rubles and more, being developed by the ministries, if their planning does not include construction of vocational-technical schools.

Finally, the ministries and departmen should complete the development of method instructions, which has dragged on since 1000, as procedure for calculating the number of skilled workers required at newly-constructed enterprises and projects; together with the vocational-technical education authorities, they should identify the student contingents for studies at the vocational-technical schools, who upon graduation are subject to transfer to newly-commissioned enterprises; and they should organize their practical study (practical production) in a timely manner. In addition, more rational use must be made of the night school departments at operating vocational-technical educational institutuions, as well as courses for training and retraining skilled workers for newly-commissioned projects and capacities. And more widespread application should be made of the proven practice of transfering skilled workers, who have completed preparatory training at functioning enterprises, to newly-commissioned projects.

I would like to call attention to one more very important aspect of the problem at hand. It concerns the strict observance of the statutes on the Basic Directions of Economic and Social Development of the USSR for 1981-1985 and for the Period up to 1990; of the decrees of the CPSU Central Committee and USSR Council of Ministers of 12 March 1981, "On the Further Development and the Increase of Efficiency of Agriculture in the Non-Chernozem Zones of the RSFSR for the years 1981-1985"; and also on the limitation of industrial construction in the large cities and on additional measures for organizing the construction of industrial enterprises in Moscow Oblast and others, which pertain to deploying new industries and providing manpower to enterprises just put into operation. Here, it was born in mind that further industrial development in the European part of the country and

in the Urals should be carried out basically by virtue of better use of the established industrial potential, by virtue of reconstruction and retooling of existing enterprises without increasing the number of workers; and—in the non-chernozem zones of the RSFSR, for the period 1981-1985—by placing maximum limits on construction and expansion of industrial enterprises not connected with agriculture or the processing of agricultural products.

Proceeding from the decisions of the directing authorities, Gosplan USSR has defined a list of small and medium-size cities for industrial construction, and has developed recommendations for establishing labor-intensive industries in the republics of Central Asia, the Trans-Caucasus and south Kazakhstan; these recommendations are included in all method directives of Gosplan USSR on manpower distribution. And nevertheless, the ministries and departments are submitting proposals for construction of new enterprises chiefly in the center of the country and in the Urals, without considering the fact that there are already tens of thousands of workplaces here for which there is no manpower. Thus, Minavtoprom is expanding the Moscow Automotive Plant imeni Leninskiy Komsomol, increasing the number of workers and employes by several thousand persons; and Minchermet USSR plans to expand and construct a number of ferrous metallurgy enterprises in Dnepropetrovsk and Donetsk Oblasts in the Ukraine, for which additional manpower is needed.

Quite frequently local Soviet organs also grant permission to establish new workplaces in regions with insufficient labor resources. It is well-known, for example, that there are no surplus labor resources in Belorussia and especially in Minsk Oblast. Meanwhile, the Stolbtsovskiy Rayon Council of People's Deputies, Minsk Oblast, confirmed the capability for supplying manpower to the newly-constructed Minsk Electrical Equipment Plant imeni Kozlov, of the Ministry of the Electrical Equipment Industry -- in the number of 2,000 persons--based on the unemployed, able-bodied populace. Similar decisions are being made in other localities as well. In this connection, with respect to questions of distribution of manpower, the ministries and departments must strictly carry out the decisions made previously, and not be guided by the momentary advantage to the branch. And local planning and labor authorities, when coordinating documentation on construction of new or expansion of existing facilities, especially in the regions with a labor shortage, are obliged to take an objective, statesmanlike attitude toward coordinating an increase in the number of workers, as well as the sources for providing manpower to newly-commissioned industries.

Only an integrated solution to the problems examined will permit sharply reducing the periods for assimilating new capacities, and thereby ensure the equilibrium of plans—and satisfy more completely the needs of the Soviet people.

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ALL-UNION SEMINAR ON LABOR HELD IN DNEPROPETROVSK

Moscow SOTSIALISTICHESKIY TRUD in Russian No 5, May 84 pp 37-59

[Article: "An Important Reserve for Increasing Production Efficiency (From the All-Union Seminar in Dnepropetrovsk)"]

/Text/ One of the central places in the party's economic policy is occupied by the questions of increasing the efficiency of social production, of making the transition to a predominantly intensive path of development. The party has assigned us the task of making fuller use of that enormous production potential which we already possess, to achieve an increase in production output with the same or lesser number of employees, to wage a determined struggle against losses, to be thrifty with every minute of working time. This opens up a wide scope for initiative and creative searching. "To be capable of seeing and supporting initiative from the people in good time," Comrade K. U. Chernenko, the general secretary of the CPSU Central Committee, noted at the extraordinary February (1984) Plenum of the Party Central Committee, "moreover, in the broadest sense, ranging from an economical, creative attitude toward the task at the work place to active participation in governing the state and the society--herein lies the greatest, it may be said, the inexhaustible reserve of our progress." The work results in the third year of the five-year plan have shown that the task assigned by the party is being carried out successfully.

There are, nevertheless, a number of problems upon whose solution there derends, to a large extent, our country's further forward movement along the path of economic and social development. This means, above all, a rational utilization of personnel, observance of the balance between labor resources and the number of job slots, which is increasing from year to year. This problem is of enormous importance to the national economy. As a result of the fact that we do not have enough manpower, expensive equipment is often not fully utilized, and sometimes even remains idle. As a result, we suffer great losses.

Investigation of 240 enterprises under 12 industrial ministries has shown that excess work slots on the first shift alone average about 10 percent. This leads to a reduction in the coefficient of the operation replacement of equipment, to an under-utilization of production assets; it brings about an increased demand for employees and engenders personnel turnover. Under such conditions the systems of wages and setting work norms do not always fulfill their functions.

In recent years a great deal has been done to reduce the sphere of utilizing manual labor and to improve its conditions. This has allowed us to achieve definite results during the three years of the five-year plan. In industry alone the number of those employed in manual labor has been reduced by hundreds of thousands of persons. But the effect could be even greater if all the measures were conducted in close coordination with the plans for the organizational development and material provision of associations and enterprises. But these plans are frequently carried out in an uncoordinated and non-comprehensive manner. For a long time there was a failure to find an integrated methodological base for a multi-faceted evaluation of production potential and its foundation—the job slot.

The given task has been fully responded to by the certification of job slots with respect to their meeting the requirements of NOT /scientific organization of labor/, as well as progressive equipment and technology. It has made it possible to solve a complex of technical, organizational, and social problems under the conditions of the existing production facilities, to make better use of an enterprise's internal reserves, to free up and transfer to other sections a considerable number of workers, and thereby to increase production output without hiring new people.

In February of this year a seminar was held in Dnepropetrovsk, attended by the deputy ministers, chiefs of the main administrations of the industrial ministries, and directors of enterprises; it was organized by USSR Goskomtrud /State Committee on Labor and Social Problems/, the AUCCTU, the Dnepropetrovsk Obkom of the CP of the Ukraine, the Ministry of Tractor and Agricultural Machine Building, the UkSSR Goskomtrud, the All-Union Scientific-Methodological Center for Labor Organization and Production Administration, and the Dnepropetrovsk Combine Plant imeni K. Ye. Voroshilov. The seminar's goal was to acquaint people with the operational experience of the Denepropetrovsk Combine Plant and that of other industrial enterprises with regard to enhancing production efficiency, based on the comprehensive certification and rationalization of the job slots, as well as the use of progressive solutions and standards.

The following persons delivered reports: the first secretary of the oblast committee of the CP of Ukraine, V. G. BOYKO, the chairman of USSR Goskomtrud, Yu. P. BATALIN, the deputy minister of tractor and agricultural machine building, G. P. YELISEYEV, the director of the combine plant, A. A. POKUSA. The reports and communications from the directors and enterprises and institutions, as well as those by scientific experts, examined the ways of improving and expanding the certification of work slots at industrial enterprises, along with the problems of ministries, departments, and scientific organizations.

The seminar participants visited the Dnepropetrovsk Combine Plant, talked with the specialists and workers, and familiarized themselves with the practice of certifying the job slots.

But just how was the experience of the combine builders evaluated? As Yu. P. Batalin noted in his report, during the process of certification the following are determined: the degree of machine-worker ratio, the qualitative level of the equipment and technology used by them, and the organizational and social characteristics of the job slot. The principal innovation of certifying lies in the fact that the job slots (and in the future it is proposed that this

be spread to sections, workshops, and enterprises as a whole) are evaluated in a COMPREHENSIVE AND MULTI-FACETED WAY by technical-technological, organization-al-economic, and social factors. Also taken into account are the level of the general-education and vocational training of the workers, their social and labor activities, the forms of labor organization, setting norms for it, and other factors. Such an evaluation is basic for working out measures for ratio-nalizing job slots, the implementation of which will ensure the more efficient use of existing fixed capital, labor and material resources, i.e., the production potential which we have. The conduct of certification everywhere at industrial enterprises will allow us to improve the ratio between job slots and labor resources and, therefore, put an end to the notorious personnel shortage, the scope of which has frequently been exaggerated.

The certification and rationalization of job slots will facilitate a greater coordination in work on training and raising the skills of personnel; it will allow us to take the genuine requirements of production more fully into account, and this, in turn, will help us to make better use of the country's labor potential. Furthermore, certification provides the opportunity to improve working conditions, to specify those job slots which could be filled by retirees and/or invalids; it will also help in making wider use of the partial workday, i.e., to attract additional labor resources into the national economy.

It was not by chance that the experience of the Dnepropetrovsk combine builders was at the center of attention for the seminar participants. A harmoniously constructed operational system is being constructed here according to plan. Various normative documents have been put into operation which define the procedure for carrying this out, for distributing the functions, the responsibility, and the criteria for evaluation.

The high efficiency of the group's efforts along these lines is convincingly shown by the indicators of its activities. During the three years of the 11th Five-Year Plan the production volume with respect to normative net output increased by 28 percent, while profits increased by a factor of 1.5; moreover, about 600 job slots were curtailed, which amounts to approximately 20 percent of their total quantity, and 464 units of equipment were freed up; they were disassembled and sold. The return on investment increased by 11.9 percent, while the coefficient of operational replacement of equipment amounted to 1.53.

As of now, the Dnepropetrovsk Combine Plant is the sector's leading enterprise. With regard to their technical level, the machines turned out here do not fall below the standards of the best Soviet or foreign counterparts. In carrying out the party's directives with respect to furnishing agriculture with highly efficient equipment, this plant created a complex of machines for completely mechanizing the harvesting of sugar beets. In the 10th Five-Year Plan alone more than 2,240 tons of metal were saved in their production and 4,734 tons of standard fuel in their operation. The use in the fields of the six-row RKC-6, truck-type combines, the output of which was developed at this time, increases labor productivity in beet harvesting 30-fold and frees up three persons per combine. It has been computed that in 1982 alone the economic effect derived from using the machines of the Dnepropetrovsk Combine Plant amounted to 60 million rubles.

For six years in a row the group at this enterprise has won in the socialist competition the Challenge Red Banner of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU, and the Komosomol Central Committee. The experience of this plant received high marks at the December (1983) Plenum of the CPSU Central Committee.

The First Stage--Taking Inventory

The seminar participants had the opportunity to become acquainted in detail with the experience of the Dnepropetrovsk people. This question was elucidated in detail by the plant director, A. A. POKUSA, and the chief engineer, A. S. KOTSYUBA. A great deal was gained by a visit to the enterprise: the workshop chiefs and the workers talked about how things were prior to certification, what happened, and they shared their plans. A lively interest was evoked by the exhibit which was organized by the plant.

What was it which served as the driving forces to begin such a project? Above all, need for increasing the production volume for an increasing complex product for the needs of agriculture, to increase the quality and efficiency of the equipment being turned out. To solve these large-scale problems under the conditions of a plant which will soon be 90 years old was very difficult. As an enterprise located almost in the center of the city, it did not have the opportunity to construct new buildings or to expand. The industrial buildings were old, and it was crowded in the workshops. At every metalworking machine tool there is only half the production area provided for by the normative standards. Many machine tools were standing idle or often went out of order. The positioning of the equipment did not always correspond to the logic of the technological process, because of which there was, at times, an irrational shifting of assemblies and parts of machines. The workers were wasting a great deal of time in looking for tools which they needed. The measures which were carried out with regard to improving the working conditions under such circumstances did not yield the results which they should have.

About six years ago, the chief of the NOT laboratory, N. I. SKIDAN, stated that the plant's leading officials were disturbed by the low yield on the outlays for new equipment. The plant was spending hundreds of thousands of rubles on equipment, but it was being used unsatisfactorily. Also having an effect was the shortage of labor resources. There remained only one way out: to organize the business in such a way that from the very same production areas and with the very same number of industrial-production personnel significantly more output would be produced, and the quality would be improved.

The solution to this problem was assisted by the Comprehensive System for the quality control of output and the effective utilization of resources, as developed in Dnepropetrovsk Oblast and successfully introduced at this plant. The group has made creative use of many advanced techniques from those which have been accumulated in machine building during the course of the socialist competition to upgrade efficiency and quality (the Novocherkassk system of operative-calendar planning, the experience of the Dinamo group with regard to adopting personal plans, the brigade form of labor organization, etc.).

Focusing on the job slot, on the bottom unit of the production organism, is a characteristic trait of the work on upgrading production efficiency at the combine plant. Because, of course, if each of them obtains the maximum yield, then this has a positive effect on the results of the activity of the entire enterprise.

The advantages of such an approach lie in its specificity. It provided the opportunity to determine precisely what had to be done in order to increase labor productivity. Focusing on the job slot allowed them to extensively draw into the search for and use of reserves all the workers, engineers, and technicians; it facilitated creative initiative. The goal was to raise labor productivity at one's own work place and thereby make the work more interesting and substantive—nobody could be allowed to remain indifferent. Everybody strove to make his own contribution to the common cause.

They began with a preliminary analysis of each job slot within a cross-section of the workshops, sections and brigades. They assigned the following task-to determine their total number in basic and auxiliary production, as well as for reprocessing, the availability of organizational outfitting and its correspondence to the standard plans. The information about the status of the job slots (the level of their equipment) the degree of labor mechanization (its organizational conditions) was needed for the ensuing profound analysis of them and for working out organization-technical measures. Taking inventory is like a kind of detailed photography of the production facilities, allowing us to discern deficiencies, many of which were not noticed before or were not deemed to be important. "It revealed many facts which each of us had encountered on more than one occasion but had gotten used to looking at". stated the deputy director of the plant for economic matters, G.A. CHEREDNI-CHENKO. "It turned out, for example, that normal work conditions had not been created for the adjusters, on whom depends the precise rhythm of the entire machine-tool stock; they did not even have work benches. Work places were discovered which were busy less than half of the shift time, and there were some which were not needed at all. This appeared to be the result of the fact that, at certain times, without having the need, we accepted everything which they 'provided.' An order would be issued for a machine tool, whether necessary or not, and we accepted it whenever it suited us. Or an antedeluvian machine tool would stand in the shop which should have been written off as scrap metal long ago, but nobody would touch it, thinking that it might be needed at some time or other."

Excess equipment was disassembled and sold in the amount of 1 million rubles to enterprises and kolkhozes which did need them. For the most part, these were universal lathes, unsuitable for repair and of low efficiency in serial production. With this money they acquired highly productive units and created new job slots, based on progressive solutions.

Study of the status of the job slots provided a key to the systems-type approach in implementing all the measures with respect to increasing production efficiency. Analysis showed that certain job slots were not needed at all, and they were eliminated. Others were combined in accordance with technical criteria, and the remaining ones were modernized. Organizational-technical measures allowed each work place to be brought up to a level which corresponded to the progressive solutions.

At the plant a procedure was specified for taking inventory; it was confirmed in a special statute and approved by the chief engineer. It has been used as a basis for compiling information on the availability of job slots for redistribution as well as with regard to all the leading occupations in a cross-section of the shops and services. However, the data obtained by such a method cannot serve as a permanently fixed guideline for work, inasmuch as production is constantly changing: the output of new equipment is organized, obsolete models are removed, new capacities are put into operation, the vocational-skills composition of workers becomes different, and a combination of occupations is developing. All this leads to a change in the job slots themselves and their quantity. Therefore, their inventory is being taken on an annual basis.

From Evaluating a Job Slot to Rationalizing It

The results of the inventory at the plant have been meticulously studied, and, based on them, measures have been worked out for introducing progressive equipment and more improved engineering processes, new fittings, for mechanizing and automating production processes, inter- and intra-shop transport of parts, assemblies, etc. For this purpose a special, plant-wide commission has been set up under the chairmanship of the chief engineer. Within the shops and divisions working groups of specialists have been organized which perform technical assignments along operational lines, as specified by orders.

The purpose of all the measures being carried out is to increase labor productivity, improve its conditions, free up superfluous servicing personnel, and reduce the number of job slots without causing damage to the business. Such an approach excludes the scorning of any factor whatsoever pertaining to the growth of labor productivity; it takes into account all the "petty details" which are of importance for a job slot, details which previously were not paid attention to. As A. A. POKUSA stated, certification is conducted simultaneously throughout the entire plant, during the course of a week's time, and this permits them to obtain a unique, as he expressed it, "X-ray picture" of the entire production facility as a whole and of each job slot in particular. Participating in this are not only the specially trained employees of the technical, economic, and social services but also the persons directly concerned -- the workers. "Certification," stated the plant director, "is, in a certain sense, an annual 'fair' of technical ideas. In 1983 alone, for example, specialists in cooperation with the workers submitted 4,420 suggestions, 629 of which were directed at eliminating under-utilized job slots and freeing up unnecessary equipment."

The NOT laboratory has drawn up a special form which may be used for certifying 10 job slots at one time. It allows them to be grouped by any criteria (level of labor organization, type of operations, redistributions, the territorial criterion) and to facilitate the working out of the necessary organizational-technical measures at once for a complex of job slots, as well as to compare the indicators characterizing the degree of their correspondence to the progressive solutions by each criterion, and to reveal the need for technical and organizational outfitting.

At the plant they came to the conclusion that, in order to expand production, radical changes were necessary; moreover, these had to begin from the work places, because of the imperfections of which, in many cases, there is a reduction of the effect to be derived from adopting new equipment. For example, they installed an up-to-date machine tool, but the lathe-operator lacks the simplest hoisting attachment, as a result of which he spends most of his working time on heavy, auxiliary, manual operations. Another worker cannot work at his productive best because of poor lighting or insufficient ventilation.

It cannot be said that attention was not paid to working conditions at this plant or that measures were not conducted with regard to its scientific organization. Quite a bit was accomplished. But they were conducted in a non-comprehensive manner, and hence their effectiveness for the enterprise as a whole was not high. Just take, for example, the auxiliary production facilities. It was not by chance that it was precisely here that there turned out to be the most uncertified work places because of a lack of correspondence to the NOT requirements. Previously, greater attention used to be paid to outfitting the basic production facilities. Furthermore, the operational shortcomings of the auxiliary services frequently constituted a brake on the development of the production facilities.

As introduced at this plant, certification of the job slots organically combines the enterprise's technical policy and the workers' initiative. One of the factors of evaluation is technical furnishing. This includes a system of providing complete sets of basic equipment, technical attachments, tools, and organizational outfitting. Also taken into account is the floor planning—the rational, spatial deployment of the material elements of production—the equipment, technical and organizational outfitting, work pieces, etc. At the same time a determination is made as to whether a given job slot meets the NOT requirements, what the working conditions are, the status of its norm setting, and the forms of organization and stimulation.

The organizational taking into account during certification of technical factors and NOT likewise found its reflection in the organization of its conduct. It is not by chance that all the work is headed up by the plant's chief engineer, and in the shops and in the sections—by the specialists of these subdivisions; moreover, it has been conducted under the conditions of a major modernization of the entire plant, and it has been important that the achieved pace not be slackened. Because, of course, in accordance with the three-shift system the casting, forging, gear-cutting, and assembly production lines are all operating, and the conveyor is moving non-stop. That is why the certification and reduction of the job slots required rigorous engineering solutions, and the plant's chief specialists were drawn into this matter.

The job slots to be certified were apportioned among the chief specialists by technical jurisdiction (in accordance with redistributions). Thus, the metallurgical heat-treatment production line and hot stamping were attached to the division of the chief metallurgist, welding and power maintanance work—to the division of the chief welder and chief electric engineer, while mechanical processing, assembly, and finishing operations were assigned to the division of the chief technologist. Such specialization ensured a skilled approach to

certification, has allowed fuller consideration to be given to the true state of affairs with regard to outfitting and servicing, floor planning, and the working conditions at work places.

Participating directly in this work at the same time are specialists on the scientific organization of Labor. The division of labor organization and the NOT laboratory prepare and work out normative and methodological documents; in conjunction with the technical services they introduce various measures. Close contact between the engineers and the NOT specialists has ensured success.

A harmonious system of certifying and rationalizing job slots has been set up. Methods have been worked out for taking into account and analyzing job slots and their subsequent certification, along with a procedure for summing up results, as well as the appropriate standards for an enterprise, and other documents. Many of them have been given the form of statutes. A system of monitoring controls has been set up.

Every line by which a job slot is characterized includes four more evaluational indicators for a narrower section. For example, the factor entitled "Planning and Division of Labor" is divided into general planning, sanitary-hygienic conditions, aesthetic requirements, labor and rest schedules. Such a differentiation allows us to make an evaluation with respect to the individual elements specifically. It is presented in the form of a certification card. The highest evaluational rating for an element is 0.25 points, while for an entire line it is 1 point. A job slot is considered to be certified if the total rating for the four elements is at least 0.85 points. But if it does not correspond to the standard plan with respect to even one factor, then it is not certified.

It is possible that at other enterprises engaged in certifying job slots such criteria may be more or less, the factors of evaluation also differ, other values may be established for the coefficients and the ratios between them, as well as the level of that "threshold" (the totals of the coefficients by factors) according to which it is determined whether or not a given job slot meets the NOT requirements or not. But one thing is undoubtedly true--every enterprise needs a system for certifying job slots.

Impressive Results

But just what has the certification of job slots contributed to the Dnepropetrovsk combine-builders? First of all, it has raised the grounds for plans and has expanded the scope of introducing the scientific organization of labor. During the last two years alone, in accordance with the standardized plans, the overwhelming majority of which were worked out by the plant itself, taking into account the characteristics of production, 772 job slots were organized. In this connection, it should be noted that the plan for bringing each of them up to the level meeting the progressive organizational solutions includes only the economically justified measures supported by the necessary assets and sources of financing.

Another important result consists in the fact that, based on certification, a comprehensive program is being implemented for reducing manual labor during the

years 1981--1985, according to which it is proposed to reduce the number of those working manually by 159 persons. In cooperation with the Ukrainian Scientific Research Institute for Agricultural Machine Building, robots are being introduced at this plant. The use of means of small-scale mechanization is being expanded.

The seminar participants, particularly those who had visited here previously, could easily be convinced that, as a result of certification, the plant had changed beyond recognition. Everywhere one feels a sense of order, of good organization; it has become more roomy in the workshops, and working conditions have improved. Now nobody runs around any more in search of a tool. Every work place has racks with everything necessary for the work, as well as packaging for semi-finished and finished products. Thanks to the well-thoughtout deployment of equipment, there has been a reduction in the intra- and intershop hauling of goods. We did not see a single person standing around without anything to do. "The work which is being conducted at this combine plant is impressive," noted one of the seminar participants, the PO /Industrial Association/ general director of the Tashkent Tractor Plant imeni 50th Anniversary of the USSR, I. KH. MUKHIN. "Of course, since they expected guests, they could have painted and cleaned things up a bit. But this plant has not only cleanliness but, above all, good order in everything, a well-thought-out quality in organization, and this is something you cannot accomplish in a brief period of time. Within the limited space available we saw some roominess in the assembly shop, where there is usually less order. Here the normal technical process is going on."

The certification of job slots is a continuous process. There can never be such a situation where everything has been accomplished and everything adjusted. Production itself changes, demands increase on the job slots, suggestions constantly come up regarding the use of reserves. But the number of job slots certified annually is decreasing. And this is natural. As a result of the work being conducted at the plant, fewer and fewer "bottlenecks" remain, which is testified to by the dynamics of the change in their number over the four-year period (Table 1).

Table 1

Job Slots	1979	1980	1981	1982	1983
Subjected to certification	3142	3032	2987	2882	2789
Fully certified	901	944	1068	1348	2073
Certified with deviations by factors	1985	1856	1745	1419	629
Not certified	256	232	176	115	87

It is interesting to compare these data with the economic efficiency obtained from reducing the job slots. Thus, labor productivity has grown steadily. If the per worker computation is made within the calculation, it amounted to 4.118

rubles in 1980, and in 1983 this figure came to 5,253 rubles. At the same time there was also an increase in wages, but their growth rate was lower: 193 rubles per employee in 1980 and 203 rubles in 1983.

People have begun to work more productively; they have learned to conserve working time. Its losses in 1980 amounted to 2,648 man-days, but by 1983 they had been reduced to 1,281 man-days. Losses from unauthorized absences and latenesses in 1980 amounted to 272 man-days, while in 1983 this figure was 188 man-days. Personnel turnover has also been reduced.

Certain data which characterize the effectiveness of cutting down the job slots and freeing up workers have been cited in Table 2.

We may add to this that from year to year the plant has increased its proportion of progressive metal-cutting equipment, the effectiveness of introducing new equipment, and the machine-worker ratio. There is an increase in the degree of workers being encompassed by mechanized labor.

It is characteristic that the certification and rationalization of job slots are creating favorable conditions for making the transition to the brigade forms. In 1983, 83.2 percent of the workers were laboring in brigades. Some 399 primary groups worked on a standardized job authorization, and the principle of cost accountability had been introduced in 255. Almost all the brigades distribute their earnings in accordance with the KTU [Coefficient of Labor Participation].

In the visit to the plant the following question also came up. Over a period of four years here 584 persons have been freed up, and not just on paper but in actuality. Who are these persons, and what has been their fate? If one takes into account the fact that at this enterprise the brigade has become the fundamental form of labor organization, then, undoubtedly, most of them have been members of these primary production groups; over a lengthy period of time they worked with their comrades, became accustomed to the relationships which took shape, and mastered their occupations. It is not a simple matter to leave one's own group. Moreover, as we were informed, all the workers who had been freed up were transferred to new work places and sometimes have had to change their occupation.

We addressed the above questions to N. I. Skidan, the chief of the NOT laboratory. He replied as follows:

"When it becomes necessary to free up a worker, we offer him the choice of several job slots, outfitted, as a rule, with more improved equipment, where he can earn just as much or even more, and the work is frequently more interesting. People voluntarily make the transition to the new job slots. Here, as seems to me, the following two factors are in operation. The first is the high level of awareness on the part of the worker, who understands that the plant needs personnel in that section where there are not enough of them. And the second factor is interest in finding out about the unknown, the opportunity to test out his own strengths under new conditions."

"But what about the occupation?"

Table 2

Indicator	1980	1981	1982	1983	Total
Job slots freed up	205	256	107	102	670
Workers freed up (persons)	206	198	98	82	584
Production areas freed up					
(in m ²)	1000	750	560	665	2975
Equipment freed up					
(in units)	117	197	140	195	649
Above-plan profits from					
freeing up job slots and					
equipment, taking into ac-					
count payment for assets	-				
(in thou. rubles)	65	93	41	33	232
Decrease of outlays on equ	ip-				
ment maintenance, includin					
amortization deductions					
(in thou. rubles)	108	233	109	95	545
Increase in yield on inves	t-				
ment from freeing up					
equipment (in %)	3.03	4.17	2.08	1.81	
Relative increase in volum	е				
of commercial output by me	ans				
of freeing up job slots, i	n-				
creasing yield on investme	nt,				
growth of labor productivi	ty				
(in thou. of rubles)	2334	3477	2213	1909	9933
Profitability (in %)	16.4	17.7	21.1	18.5	
Annual economic effect					
(in thou. of rubles)	173	326	150	128	777

"The plant organizes the training of workers for new occupations if there is a need for this. This matter has been placed on a broad basis. During the four years that we have been conducting certification the number of new workers trained has grown steadily. If in 1980 it amounted to 375 persons, in 1983 it had increased to 420 persons. A worker who is transferred to a new job slot as a result of his former one being eliminated does not lose any wages during the time he is being trained, and when he masters his new occupation, he earns even more. So people go into this willingly, and, as a rule, no complications at all arise."

High results, as was noted at the seminar, and its participants became convinced of this after visiting the plant, were achieved thanks to the fact that the certification of job slots became a matter for the entire group. The measures which were worked out for utilizing reserves met with the support of the workers, engineers, and technicians, and they provided a new impulse for creative initiative. During the course of certification the specialists consult with the workers, who usually help in finding the most rational solution and set forth their own proposals.

Here are several examples. The section engaged in assembling the SPS-42 sugarbeet loader was a "bottleneck." On its small-sized area it was difficult to conduct the conveyor assembly of the machines, especially the hoists (suspension transporters). There was no order in this section; parts lay about in a heap. During a shift the brigade would assemble no more than three units. When proceeding to certification, they invited the chief and the mechanic of the workshop as well as the foremen. First of all, they decided to make suitable racks. The brigade leader, D. P. Vykhovanets proposed his own design for racks for the hoists. When they were installed, the section was transformed. Here it became possible to use the means of mechanization, which previously had not been used because of the crowded conditions. They succeeded in eliminating one job slot entirely. Now two assemblers put together five hoists during a shift instead of three.

In the machine-assembly shop, where the brigade of assemblers work under I. P. Povirennyy, a considerable portion of the production operations on assembling the units used to be performed manually. In order to improve the technology of assembly and reduce the outlays of manual labor, the brigade leader developed a trimmer with a mechanical drive, which allowed them to increase the number of units being assembled from 30 to 55 units per shift. In order to eliminate manual labor in pressing the bearings and thereby eliminate the trimming operations, I. P. Povirennyy utilized a pneumatic attachment which doubled the labor productivity in auxiliary operations.

L. P. Pisarchuk's brigade of welders came up with the initiative to eliminate two job slots by means of introducing more progressive fittings and equipment. In the stamping-and-welding shop V. F. Militsa's brigade introduced a number of suggestions the implementation of which made it possible to free up two presses and three workers; production output rose by 9 percent and labor productivity by 10 percent. The economic effect amounted to 12,000 rubles.

This plant conducts a revue-contest the purpose of which is to increase the initiative of workers, engineers, and technicians in utilizing production reserves in the work places. Its conditions provide for measures giving incentives to the workshop groups and division groups in the amounts of 600, 400, and 300 rubles for first, second, and third places. The names of the winners will be entered into the Book of Honor. Moreover, every engineer or technical worker who has proposed the reduction of one job slot is provided with an individual incentive. The results of this contest are tallied every six months.

Measures connected with bringing job slats up to the level corresponding to progressive technical and organizational volutions, as well as reducing their

number, are reflected in socialist pledges, personal and group-type creative plans. As the workers at this plant noted, a particularly large role in the development of intitiative has been played by personal creative plans. Their required protection has been introduced at the plant. Some 96 percent of the engineers and technicians participate in the competition on personal creative plans; its results are summed up on a quarterly basis. Almost all the plant's sub-divisions are competing today under the slogan "Perform the Tasks Which Have Been Set with a Lower Number of Personnel." The group's socialist pledge for 1984 has provided for the reduction of 100 job slots.

All the work on rationalizing and reducing the number of job slots is conducted amid widespread publicity; information about its status is reflected on stands and in the local press.

Various Approaches -- One and the Same Goal

As the presentations at the seminar showed, the certification and rationalization of job slots are conducted not only in Dnepropetrovsk. Other enterprises have determined other approaches of their own to this matter, their own methods and organizational solutions. But all of them have one and the same goal—to ensure the decisive transition to intensive methods of economic managements and, based on this, a sharp upsurge in production efficiency, to eliminate the disproportions which have taken shape between the number of job slots and the presence of labor resources.

The work being conducted in argricultural machine building, on which the Dnepropetrovsk Combine Plant also has a bearing, was talked about in his speech by the deputy minister, G. P. YELISEYEV. He remarked that the sector is faced with the need to solve very great and complex problems of the USSR's Food Program with respect to supplying agriculture with highly productive equipment. And this has to be done with an unchanged number of employees.

At the present time a number of important measures are being carried out with regard to refurbishing this sector's production associations and enterprises; however, as analysis has shown, at many of them the utilization of progressive equipment has not always been accompanied by the elimination of the obsolete job slots, and they are, so to speak, "eating up" the economic effect. Thus, during the three years of the five-year plan, despite the fact that there has been a widespread introduction of up-to-date equipment and technology, the coefficient of fixed-capital renewal decreased by 11 percent, while the coefficient of wear rose from 0.33 to 0.37 percent. If in setting up new, more progressive work places, the obsolete ones are retained, there occurs a violation of the quality of balance between their actual presence and the plan needs of the workers. Taking all this into account, the ministry has worked out a program, designed for several years ahead, for the optimal utilization of labor resources; it provides for a reduction of job slots. Its intent is extremely simple: instead of the traditional "nominal" freeing up of workers, there is to be a genuine reduction in the number of job slots and, correspondingly, in the number of workers serving in them. With this goal in mind, a special central commission was created, headed up by the minister. Included in it are the chief engineers of the All-Union industrial association , responsible employees of the central apparatus, and scientists. Analogous commissions are operating in all

the VPO's All-Union Industrial Associations, NPO's Scientific-Production Associations, associations, and at enterprises.

The reduced job slots are taken into account for sections, workshops, technological redivisions, production facilities, plants, and associations as a whole. The accounting is conducted in accordance with the classification cited above by the number of slots eliminated and persons freed up, depending on the number of performers and the replacement of work by equipment, separately for basic and auxiliary production. Such data are reflected in units which are standardized for all enterprises. With this goal in mind, an automated system of accounting and monitoring controls on the performance of the above-mentioned program was set up, and this makes it possible to effectively intervene in this or that enterprise, to objectively evaluate the progress and results of the work.

The ministry has approved a special statute concerning the certification of job slots and sections in accordance with the requirements of the scientific organization of labor. It is being implemented by the following six factors: floor planning, level of furnishing with equipment, division and cooperation of labor, setting norms, servicing of the work place, and working conditions. A job slot is deemed to be certified if the number of elements not meeting the standard requirements for this or that factor does not exceed one. The total evaluation for all six factors comprises at least 0.85 of a unit.

Success in the work being conducted is also facilitated by the close interaction between the enterprises and the scientific-research organizations. Beginning in 1981, the scientific-research and the planning-and-designing institutes have been charged with the responsibility for executing technical and organizational measures with regard to freeing up job slots. This has become one of the chief indicators by which the efficiency of their activity is evaluated. The functions of a pilot organization are being carried out by the NIItraktorosel'khozmash Scientific-Production Association. Cooperation is also being expanded with the institutes of the USSR Academy of Sciences, the scientific-research and planning-and-design organizations of other sectors, and higher educational institutions. As a result of their joint efforts, 61 percent of the workers presently in agricultural machine building are employed in job slots organized in accordance with the standard plans.

In conjunction with the Central Committee of the trade union of workers in automotive, tractor, and agricultural machine building, the ministry announced a revue-contest for the best project on the certification and rationalization of job slots. Revue commissions have been set up throughout the sector under the direction of the chief engineers. The managers of the production associations, enterprises, and organizations, in connection with the reduction of job slots and as a result of implementing the personal creative plans of engineers and technicians, have been granted the right to award them bonuses by means of the actually obtained savings, utilizing for this purpose as much as 40 percent of the wage fund from the freed-up personnel. It has also been recognized as feasible to pay out a simultaneous award or establish an additional payment of as much as 50 percent of the wage rate of a freed-up worker, as well as to increase the size of the award according to the work results for the year. All these measures allowed a reduction of more than 18,000 job slots during 1983.

Experience in improving the efficiency of job slots was also shared with the seminar participants by the deputy chief of the technological administration of the Moscow Motor-Vehicle Plant imeni Likhachev, A. P. GLAZUNOV. He noted that the widespread introduction of the achievements of science and technology, as well as measures in the NOT field, made it possible to proceed in 1981 to the mass certification of job slots in all categories of workers. With this goal in mind, a special group was set up here which was entrusted with the task of studying organizational problems. In contrast to the Dnepropetrovsk Combine Plant, preliminary registration of the job slots is conducted here. The form of the document and the procedure of the work have been specified. They have likewise thought about training the specialists who will be entrusted with this task. Courses have been organized for upgrading the skills of the norm-setters following a 140-hour program, since setting labor norms at the plant takes on particular importance during the process of certification. The courses and seminars have been of help in developing unified views and methods for improving norm setting and labor organization, based on the registration documents of job slots.

Practical experience has shown that the effectiveness of measures with regard to setting norms is determined, to a considerable extent, by how closely they are tied in with organizational-technical measures, with technology. Therefore, at the ZIL /Plant imeni Likhachey/ the setting of labor norms has been included within the structure of the technological administration. Handing over the functions of setting the labor norms to the technologists provides a number of advantages. While working out the engineering processes which specify the manufacturing schedules, the technologist is, at the same time, planning the labor organization and drawing up the technical-norm-setting chart. Such an approach is conditioned by the over-all responsibility for reducing the labor-intensity of the products being turned out, which predetermines the nature of the organizational-technical measures being carried out.

Within the association widespread use is made of progressive labor norms for this purpose. Annually here provision has been made in the direction of increasing to 40,000 the existing production norms, which constitutes 15 percent of the total. As a result, the proportion of technically justified norms in basic production today has reached 90.2 percent, in auxiliary production--73 percent; moreover, 85 percent of the workers paid according to the time rate are working on tasks for which norms have been set. For the entire association the production norms have been fulfilled by 116.7 percent, while the workers in basic production have done so by 112.2 percent. The systematic introduction of new equipment and technology, improvement of setting labor norms, and organizational technical measures have allowed a significant reduction in the planned labor-intensiveness in the production of the basic types of output.

But just what constitutes the registration document for a job slot? It is a standard document in which its organization is regulated and all the technical-economic design calculations are provided. It serves as the basis for determining the planned number of workers. Established therein is the general information about the job slot; it provides its floor plan and the worker's path of movement, the system of payment, the program for the monthly production of items, the shift, number of operations and parts, the model of equipment, the

coefficient of loading it, the name of the developer, specification of the responsibility of the performers of the functional services, etc.

The document of registration also contains information about certification, grouped under six divisions. Here is the presence at the work place of technical documentation, the characteristics of the equipment and office fittings; the elements of the working conditions, etc. The main division—the sixth—contains the calculation of the technical and economic indicators. It indicates, for example, the coefficient of the worker's activity in the cycle, in the shift, the labor—intensity of the article being produced, the cost—estimate of the operation, the monthly wages, etc.

The filled-out registration document is examined by the workshop commission, which, based on the data cited therein certifies the job slot. If, with regard to even one of the certification criteria, it does not meet the established requirements, then it is not certified; measures are worked out and conducted, directed at achieving the optimal indicators. And if the work places are not busy enough, they are combined with others, which also makes it possible to free up some of the workers. All this work is monitored by the supervisors of the sub-divisions and the functional services.

As of 1 January 1984, more than 17,000 registration documents had been compiled in the association for the overwhelming majority of job slots; of these, 94 percent had been certified.

The general director of the Tashkent Tractor Plant imeni 50th Anniversary of the USSR Industrial Association, I.KH. MUSIN, fully shares the opinion of the Dnepropetrovsk combine builders to the effect that only a comprehensive approach can ensure a significant effect. If the number of employees is reduced by means of organizational-technical measures along various lines without any tie-in to the job slots, it is impossible to fully solve the problem of ensuring the production by personnel necessary for the growth of production output. Therefore, in 1981 they made the transition at this plant to a comprehensive annual certification, based on the example of the Dnepropetrovsk workers.

The analysis began with the "bottlenecks"--first of all, with the forge-press and heat-treatment shops, where the heating workers of the chamber-type gas furnaces were working under difficult conditions. Labor productivity here was low; the shops had no passage-ways between the forging lines, and the storage of the dies was not well-arranged. On the basis of certification the job slots in these shops were rationalized. In place of the chamber-type gas furnaces, 10 forge-type induction heaters were installed, a re-planning was conducted, servicing of the forging lines by means of on-floor transport was organized, the mechanized storage of dies was created with a crane-stacker, and the working conditions were improved. In the heat-treatment shop they introduced 5 automatic galvanizing lines, chemical-thermal processing in automatic, non-muffle units. In these two shops 167 job slots were certified and 7 were eliminated; 27 workers were freed up; labor productivity was increased by 10 percent, and product quality was improved.

Measures regarding certification are discussed in the brigade and shift groups. This facilitates the development of the efficiency expert movement, in which

approximately 1400 persons are taking part. The economic effect derived from the 775 efficiency experts' suggestions which have been introduced and the 58 inventions have amounted to 1,075,000 rubles. It is interesting that 30 percent of all the suggestions are directed at improving the work places.

Over the three years of the present five-year plan 1,755 job slots have been certified, and 324 have been eliminated; quite a few workers have been freed up and transferred to other sections; more than 200 units of physically obsolete equipment were dismantled, and 3,000 m2 of production area were freed up. Within the workshops more than 100 automatic and semi-automatic lines were installed, along with more than a thousand special and unit-type machine tools; comprehensively mechanized sections have been created, where industrial robots are utilized. To a considerable degree, thanks to this, the volume of production rose by 18 percent, there was an increase in labor productivity, working conditions improved, and there has been a sharp reduction in turnover. The enterprise began to operate smoothly. The coefficient of smoothness reached 0.95. Just as at the Dnepropetrovsk Combine Plant, certification here is conducted in parallel fashion with the development of the brigade form of labor organization and wage payment, and the brigades encompass 82 percent of the workers. The certification indicators are taken into account in summing up the results of the groups' socialist competition.

Evaluations, Suggestions, and...Admonitions

"We are the witnesses of a very important process," noted the director of the All-Union Scientific-Research Institute of Standardization, Doctor of Economic Sciences A. V. GLICHEV, "when we study the experience of the combine plant with respect to increasing production efficiency, based on the certification and rationalization of job slots and the introduction of an enterprise's standards. In the given case the scientific organization of labor and standardization have merged together. We have for a long time moved along parallel paths, but here in Dnepropetrovsk their merger has occurred in practice." He suggested that the seminar's recommendations more fully reflect the role and possibility of standardization, inasmuch as standards accumulate in themselves advanced experience, that use been made in the practice of certifying job slots of the standards of the technological production training, labor safety, etc.

At those enterprises where certification has been conducted, as A. V. Glichev noted, there has been a sharp increase in labor productivity, particularly in brigades—by 10--12 percent, and in certain sections of the combine plant—by 25 percent. This is like an explosion. But the successes need to be consolidated, and for this purpose it is feasible to use the tried and true method of forming comprehensive systems, to single out pilot-type, base organizations which would concern themselves with the given project. The experience of the Dnepropetrovsk people must be disseminated soon, but without undue haste, and it must be well-prepared. "We have been taught by bitter experience in rapidly introducing comprehensive systems of product quality control, when in the early going, desiring to report that the system has been created more quickly, many managers have begun the preparation of enterprise standards without conducting preliminary improvements in production organization." A similar danger can also arise in disseminating the experience of certifying job slots, and this can only discredit it.

On the other hand, as I. Kh. MUSIN noted, "we would like to warn that this vital matter not be 'overly studied,' that the technologists should not busy themselves merely with drawing up detailed accounting reports."

In evaluating the experience of the combine builders, V. V. BOYKO, a department head at the Dnepropetrovsk State University, dwelt particularly on the problem of utilizing fixed capital. From year to year at industrial enterprises there has been a growth of the capital-labor ratio, and hence also of the cost of a job slot. In the future too it will grow at a high rate. Therefore, the question of a return on investment in the means of production assumes great important. Meanwhile, as a result of mismanagement and a lack of monitoring control over the accumulation of machines and equipment, the return on capital and profitability have declined. The time has come when the achievement of the assigned growth rate in production volume and labor productivity must be accomplished not at any price but by the maximum utilization of all reserves and, above all, by the fullest possible loading of the equipment. And it is precisely on this level that the experience of the combine-builders is valuable; its principle purpose is to increase the return on capital. The Department of Economics at the Dnepropetrovsk University has worked out methodological recommendations providing for the application of the normative method of calculating the load of technological equipment, which is already being used at a number of machine-building enterprises.

The problem of a state of balance between labor resources and job slots was the subject of the presentation by the chief specialist of the sub-division of labor productivity and industry of USSR Gosplan, V. F. BEREZKIN. He noted that at the present time the number of job slots is not accounted for by the statistics; the given indicator is not used in working out the plans for labor and the balance of labor resources, and this leads to well-known disproportions. Therefore, beginning in 1984, an indicator characterizing the number of job slots is being introduced into the practice of planning and accounting in certain sectors. In connection with this, USSR Gosplan and the USSR Central Statistical Administration has worked out standard methodological directives on the planning, accounting, certifying, and rationalizing of job slots in the associations and at the enterprises of the machine-building ministries. Taken into consideration in their preparation was the advanced experience of our country's enterprises and, above all, that of the Dnepropetrovsk Combine Plant, as well as the practice of a number of socialist countries.

This document has as its goal ensuring a standardized methodological approach in conducting this work in associations and at enterprises. It provides the definition of the job slot of one worker. That is the foundation. From the individual job slots, collective, brigade-type job slots can be formed; moreover, in both instances the individual job slot remains the object of planning and accounting.

Also provided for are the following: classification of the job slots by categories of workers, degree of labor mechanization, availability of equipment, its quantity, occupational titles, number of shifts, working conditions, and results of certification. As a rule, these criteria are used in the forms of an account. Furthermore, enterprises can introduce other classification criteria in order to obtain additional information necessary for rationalizing

their own job slots. The methodological directives contain aids for calculating the balance sheets of job slots at existing enterprises. In the future, in order to draw up their plan balance sheet, provisions have been made to introduce the indicator of a number of slots into the draft plans of the enterprises and organizations.

V. F. Berezkin noted in particular that by job slots relegated to manual labor are understood only those where people work manually at machines and mechanisms. But workers engaged in repairing and adjusting the equipment will not be counted in this category, the number of their job slots will be set by proceeding from the plan volume and labor intensity of the operations, the labor productivity, and coefficient of replacement.

Planning the number of job slots will be directed at increasing labor productivity, better utilization of fixed production capital and production capacities. It is supposed to limit the growth of their number and improve the balance with the number of the personnel. The plan number of job slots for industrial-production personnel is set depending on the pre-planned production volumes, the plan limits on the number of workers and office employees, and the coefficient of use of the job slots.

The director of the All-Union Scientific-Methodological Center for Labor Organization and Production Administration of USSR Goskomtrud, A. A. PRIGARIN, in his presentation talked about the chief characteristics of the Inter-Sectorial Method of certifying job slots in industry, as prepared by the center. Its goal is to create an integrated methodological basis for developing certification in all sectors of industry. It has standardized the tasks of the given project, specified its contents, basic phases and terminology, and--most importantly--standardized the methods and factors of evaluation.

A. A. Prigarin considers it feasible in general to abandon such terms as "inventory" and "registration" of job slots. The former essentially repeats the word "account," and, as regards the second, it seems unsuccessful for two reasons. In the first place, in practice this term is used in completely different meanings in various enterprises: in some cases it is used to mean the accounting of the number of job slots, while in others it signifies the certification itself, when their de facto status is compared with the normative requirements. Sometimes, as, for example, is done in the automotive industry, registrations are worked out only for certified job slots.

In the second place, registration, in the final analysis, presupposes the preparation of the appropriate document for a job slot, and this work must be conducted within the framework of certification and be completed by drawing up a document wherein its basic, actual parameters are set. But a registration document constitutes a considerably more bulky document, including at times as many as a hundred indicators, and which can be handled only by a very highcapacity enterprise, furnished with a special stock of computer equipment.

Taking into account that in the practice of various enterprises during the analysis of the status of job slots preference has often been accorded to either the basic, or the technical, or the organizational factors, the authors of this method have attempted to ensure a comprehensive approach to this matter. They

attribute particular importance to economic factors, which must be taken into account in the course of evaluating the given job slot as well as in subsequent work; the question is whether it is more advantageous to improve its efficiency or to eliminate it. Proceeding from this, the following three basic groups of factors have been proposed in the inter-sectorial recommendations: technical-engineering, organizational-economic, and, finally, those evaluating the working conditions. In the future, according to A. A. Prigarin's opinion, we need to create a system of normative indicators, allowing an evaluation to be made of the job slots, as well as the preparation of recommendations and normative materials for making the transition to certifying brigades, sections, workshops, and enterprises as a whole.

Several other proposals were also put forth at the seminar. Thus, from G. P. YELISEYEV'S point of view it would be feasible to introduce as one of the indicators of an enterprise's registration document the "number of job slots" instead of the indicator "standard freeing up of a number of workers." He considers that we should, on the one hand, think about measures which would motivate enterprises to reduce job slots and, on the other hand--introduce appropriate tasks with regard to reducing their number. It would also be feasible to determine in the plans with regard to new equipment how many employees ought to be freed up resulting from the introduction of the means of mechanization and automation, and in the plan for labor to provide an indicator showing the number of job slots to be eliminated."

The chief engineer of the Dnepropetrovsk Combine Plant, A. S. KOTSYUBA, emphasized that in the future it will be necessary to conduct a certification of the technological processes themselves so that they meet the requirements of the present day. For this purpose it is necessary to strengthen the creative principles in the activities of the technologists, to relieve them of office work, and to introduce a system of automatic design.

At the present time certification is being conducted at many enterprises of various ministries (tractor and agricultural machine building, the motor-vehicle industry, machine building for the light and food industry, etc.). Various methodological recommendations are being worked out. As YU. P. BATALIN, the chairman of USSR Goskomtrud noted, it is high time to make the transition to a qualitatively new stage--the centralized coordination and control of the certification process, which responds to the essence of the plan conduct of the socialist economy. Moreover, we must proceed from the fact that certification is not a short-term campaign but systematic work which it is feasible to carry out on a nationwide scale. It is necessary to act so that it may be transformed into a permanent function of administration, actively influencing the improvement of production. Already now we must give thought to creating a precise system for administering this process, to outline the tasks for the present day, as well as for the immediate and more distant future. First of all, we must formulate standing, sectorial certification commissions which would determine policy in this field. It would be feasible to organize such commissions at each enterprise.

The pilot-type scientific organizations are confronted with the task of drawing up lists and working out a complex of normative documents which would reflect the demands made upon the job slots to be certified. Fundamental among them

must become the standard plans for labor organization. At present there are more than 3,500 such plans in the sectors of industry. Many of them contain progressive technical and organizational solutions, but there are also those which have become obsolete. They all need to be re-examined, to have introduced into them everything new and useful which science and advanced practice have created. It is important that all normative materials can be utilized not only under the conditions of existing production facilities but also at the stage of planning new enterprises and new job slots, that consideration be given to the prospects for developing equipment, technology, progressive changes in the organization of production and labor.

Certification and rationalization of job slots are long-term trends in the upswing of production efficiency. It is very important, therefore, to organize the upgrading of the skills of those who will be engaged in this work. One of the measures is to include in the plans and curricula of institutes and courses engaged in upgrading skills the study of advanced experience with respect to certifying and rationalizing job slots.

Thought should also be given as to how to strengthen the influence of the local administrative organs, such as the ispolkoms of the Soviets of People's Deputies, on the rationally effective utilization of labor resources. Certification of job slots at enterprises of the region in question can be an instrument of active influence. When it is well-organized, we will be able to establish, on justifiable grounds, the number of personnel, improve the recruitment of staffs for the enterprises, ensure coordination between the development of production and the channeling of capital investments, taking into account the balance between job slots and labor resources, as well as to increase the operational shift capacity of the equipment.

* * *

In speaking to the electors of Moscow's Kuybyshev Election District, Comrade K. U. Chernenko pointed out the following: "We absolutely must ensure the rapid and uninterrupted renewal of all sectors of the national economy, based on the up-to-date achievements of science and technology. This is one of our basic tasks. Without this, the progress of society is simply unthinkable." The renewal process will take place simultaneously from above, by means of solving the major scientific and technical problems, and from below, by means of improving the efficiency of millions of job slots. It is our opinion that the discussion of these problems at the seminar in Dnepropetrovsk, along with the recommendations adopted thereat will be of help in successfully coping with the task assigned by the party with regard to upgrading the effectiveness of our economy.

N. DMITRIYEV

APPENDICES

Approved by the chief plant engineer

STATUTE: On Taking Inventory of Job Slots in Basic and Auxiliary Production at the Dnepropetrovsk Combine Plant imeni K. Ye. Voroshilov*

^{*} Published with certain abridgements and editorial clarifications.

General Provisions

Inventory of the job slots provides for conducting a preliminary analysis of their number by workshops, sections, and occupations.

Inventory specifies the following:

total number of job slots in basic and auxiliary production;

their number with respect to technological reprocessing, as well as by occupations in basic and auxiliary production;

presence of organizational equipment at the work places;

its required amount by work places, occupations, workshops, and for the plant as a whole:

number of workers, by occupations, engaged in manual labor;

level of equipment at work places;

level of labor organization at work places;

degree of inclusion of workers in mechanized labor.

Inventory of job slots is taken once a year in all structural sub-divisions which have basic and auxiliary workers.

Taking inventory of job slots is the initial stage in the work of certifying them.

The results of taking inventory of the job slots comprise the basis for planning work on the scientific organization of labor, introducing standard plans for work places in the plant's shops.

Inventory of the job slots is taken by employees of the plant's NOT laboratory.

Taking Inventory of Job Slots

Inventory of the job slots in the basic and auxiliary-production workshops is taken in accordance with Form 1 with the cooperation of the workshop norm-setters and technologists.

Columns 1-3 (of Form 1) are filled out by the shop's tabulators. The occupational descriptions are cited in accordance with the YeTKS [Unified Rate and Skills Manual].

Form 1

Record of Job Slots by Occupations and Specialties in Workshop No _____as of _____ 198_

ith the standard plans of NOT	of job slots	in manual labor	of Persons	by YeTKS	Ser. No.
6	5	4	3	2	1
	5	4	3	2	1

Form 1 (Continued)

Organizatio	nal Equip	ment	
Pedestals	Work Benches	Racks	Misc
8	9	10	11
		Pedestals Work	Benches

The number of workers (Graph 3) is the average number recorded for the given reporting period.

The number of workers engaged in manual labor (Graph 4) is determined in accordance with the labor-intensity of the operations in the given work places with an indication of occupation.

Job slots are relegated to the category of organizational in accordance with the standard plans, based on albums of standard plans.

The presence of organizational and miscellaneous equipment in the work place is determined visually.

The consolidated record of the inventory of job slots (Form 2) is drawn up on the basis of the workshop inventory forms.

Form 2

Consolidated Record of the Presence of Organizational Equipment at Work Places in the Plant's Shops as of 198_

	Plant's Workshops			Number of Job Slots	Of These, in Accordance with the Standard Plans of NOT		
1	2	3	4	5	6		

Form 2 (Continued)

		Organiza	ational 1	Equipment					
Packing Pedestals		Work Benches		Racks		Misc.			
Actual	Norm	Actual	Norm	Actual	Norm	Actual	Norm	Actual	Norm
7	8	9	10	11	12	13	14	15	16

Form 2 (Continued)

outfitting	Mechanized Labor (%)	Labor Organ- ization (%)
18	19	20
		labor (%)

The normative amount of organizational equipment is defined as follows: for operational, inter-operational, technological, and return packing materials, at the rate of 5 units for each work place; for the remaining organizational equipment, in accordance with the standard plans for each category of work place.

The level of outfitting (percent) is defined as the numerical ratio of the organizational equipment on hand to the normative (required) amount.

The extent of mechanized labor is defined as the ratio of those employed in mechanized labor to the total number of workers.

The level of labor organization in a workshop (percent) is defined as the ratio of the number of job slots organized in accordance with the standard NOT plans to their total number in a workshop.

Results of Taking Inventory of Job Slots

The results of taking inventory are presented to the chief specialists on redistributions in the form of a consolidated report on the available number of job slots in each engineering section.

The number of job slots by workshops and engineering sections is specified for each calendar term, as established by the director's orders.

In determining the number of job slots, consideration is given to those with minimal labor intensity and an incomplete shift load.

Inventory of the job slots is the basis for their certification, the mechanizing and automating of labor processes, and improvement of the efficiency of the work places in basic and auxiliary production.

Approved by the chief plant engineer

STATUTE: On Certifying Job Slots for Meeting the Requirements of NOT at the Denepropetrovsk Combine Plant imeni K. Ye. Voroshilov*

General Provisions

Certification of job slots provides the skilled determination of the de facto organizational level of job slots and production sections and the establish-

^{*} Published with certain abridgements and editorial clarifications.

ment of the degree to which they meet the standard plans (the NOT charts) and the NOT requirements which have been set forth in them.

Certification is carried out once a year for all workshops of the basic and auxiliary production facilities.

The staff of the plant certification commission is approved by the plant's director, and those of the shops—by the shop chiefs. The chairmen of the shop commissions are appointed by the shop chiefs or their deputies. The commission staffs include representatives from the trade-union committees, technologists, engineers specializing in labor organization and norm-setting, economists, employees of the mechanical and electrical services, the OTK Technical Control Division, OTB Technical Safety Division, and OPK Industrial Control Division.

Responsibility for carrying out the certification of job slots in the plant is borne by the chief engineer, and in the shops--by the shop chiefs.

The results of certification are put into documentary form by official acts, where, in addition to the evaluations "certified" or "not certified," lists are cited of specific deviations from the standard plans (NOT charts) and the NOT requirements. Measures for eliminating these deviations are included in the appropriate sections of the plans for organizational-technical measures.

The registration of job slots is conducted following the results of certification.

The acts of certification are official documents, which are taken into account in determining the organizational level of production and labor in the shops. They are stored in the shop's technical-service areas.

A Job Slot and Its Organization

Job slots are classified in accordance with the following basic criteria: type of production (one-time, serial, mass); level of labor mechanization (manual, mechanized, automated); degree of specialization (universal, specialized, special); type of production (basic, auxiliary); number of performers (individual, group); number of machine tools in service (single-machine-tool, multi-machine-tool, multi-unit); number of work shifts (single-shift, multi-shift). Organization of the job slot must satisfy the following basic requirements: maximum labor mechanization by means of utilizing the most progressive equipment, rational technological processes, highly efficient attachments and tools; economy of movements, a widespread utilization of more efficient methods and devices, optimum utilization of work time.

The Certification Procedure

Certification of job slots for their meeting the standard plans (charts) and the requirements of NOT is carried out in accordance with the following four factors: outfitting and servicing the work place— K_1 ; planning the work place and working conditions— K_2 ; division and cooperation of labor— K_3 ; setting norms for labor— K_k .

The numerical value of each of these factors is determined as the sum of their four constituent elements, each of which when it fully meets the NOT requirements is assigned a value of 0.25 points, while the factor as a whole is valued at 1 point. The numerical values of each of the elements (0.25 points) and each of the factors (1 point) are reduced if they do not fully meet the proposal, while if they completely fail to meet these requirements, they are assigned a value of zero.

Under specific conditions, the elements of the factors can be supplemented and changed.

A job slot is considered to be certified when it meets the following conditions: the number of elements failing to meet the standard requirements does not exceed one:

the number of factors with a total rating of 0.75 points (when one of the elements does not meet the standard requirements and is equal to zero) does not exceed two:

the total rating for the four factors does not fall below 0.85 points.

Outfitting and Servicing the Work Place--K1

In order to determine the level of outfitting a work place, consideration must be given to the completeness of the set of basic equipment, the technical attachments, tools, auxiliary means, and organizational equipment. Outfitting must meet the following requirements:

ensuring that the given work place is supplied with everything necessary in accordance with the technical process;

that the outfitting elements meet the requirements of the technological operations and the work to be carried out;

the high quality level and reliability of the operational characteristics of all the elements of outfitting;

taking into account the economic factors put forth for the system "man--machine --environment";

the maximum freeing of the workers from physically difficult labor operations; creation of an uninterrupted continuum in the labor process; using rational labor devices and methods;

guaranteeing safe working conditions and taking into account recommendations with regard to technical aesthetics.

Servicing a work place (providing it with the means and objects of labor, giving it services), depending upon the specific conditions of production, is carried out in the following manner:

a centralized system—the servicing functions are carried out from a single center, under the jurisdiction of the workshop, production facility, or plant; a de-centralized system—these functions are entrusted to basic or auxiliary workers in those sub-divisions which they service (a section or a line);

a mixed (combined) system--some of the service functions are carried out in a centralized manner, while others are performed in a de-centralized way.

Regardless of the production characteristics, each system must be: regulated, providing for a specific procedure for distributing work in time and space;

		Degree of Pla	n Conformit	Person	s Responsible
Ser.	Element Description	Complete	Partial		For Technical Processes,Working Out and In- troducing Serv- icing Systems
1	Basic and auxiliary equipment	0.25			
2	Technological organiza- tional equipment and tools (cutting, aux- iliary)	0.25			
3	Type of servicing (cen- tralized, de-central- ized, mixed)	0.25			
4	Provision of work- pieces, means of la- bor, and information	0.25			
	Total	1.0			

NOTE. The column "Degree of Plan Conformity (to the technical process)-Partial" indicates points whose value is below 0.25 for each of two elements.
For example, for element 2--"Technological Equipment"--suppose that instead of apparatus for group processing of parts, as provided for by the technical process (plan), use is made of other arrangements which do not conform to the plan specifications. In that case, the evaluation would be not 0.25 but 0, the total evaluation for the factor as a whole would be not 1 point but only 0.75, etc.

comprehensive, including within its own organizational structure all the necessary service units and functions;

rational, providing the most effective combination of centralized and decentralized functions;

flexible, i.e., all the service functions are interconnected and are in strict co-subordination:

operative, possessing the capability of satisfying the needs of work places within very brief time periods:

technically progressive, based on up-to-date equipment and technology, on the standardization and unification of the technical means of the auxiliary operations with regard to service;

economically efficient, ensuring a constant growth of labor productivity and improvement of all the technical-economic indicators.

Planning the Work Place and the Working Conditions--K2

The general planning—the deployment of the work place in the area of the section (shop) must provide the following: straight—through feed of the freight flows; minimal extent of the transport freight flows and worker transfers; observance of the design norms for the area of the work place; functional efficiency of the work place and its servicing under normal and emergency conditions.

Working conditions. Of all the factors of the production environment exerting an influence on the health and working capacity of persons in the labor process during certification the following must be singled out: sanitary-hygienic working conditions—the production micro-climate, the status of the air environment, noise, vibration, ultra-sonics, lighting, contact with water, oil, toxic substances, and the industrial-sanitary-everyday services at the plant;

aesthetic--the artistic-design format of the interior, the production equipment, furnishings, work clothing, and the use of functional music; the schedule of work and rest appropriate to the traits of the work being performed, planned to take into account the scientifically grounded procedure of alternating and continuing periods of work and rest in order to maintain highly productive work and preserve the health of the workers.

		Degree of Plan	Conformity	Person	s Responsible
Ser.	Element Description	Complete	Partial		For Planning, Introducing Mea- sures on Techno- logy and Working Conditions
1	Total planning of work place	0.25			
2	Sanitary-hygienic conditions	0.25			
3	Aesthetic require- ments and conditions	0.25			
4	Schedule of labor and rest	0.25			
	Total	1.0			

Division and Cooperation of Labor--Ka

Specifically, the contents of the division and cooperation of labor are expressed in the following basic forms:

singling out auxiliary operations with regard to servicing the appropriate function:

multi-machine-tool and multi-unit servicing;

utilizing the brigade forms of labor organization.

The basic requirements of the division and cooperation of labor include the necessity for a more effective use of personnel, work time, and skills of the workers, an increase in the load placed on equipment, improvement in the flexibility of employees, ensuring their broad-based inter-changeability, an increase in the contents interest and a decrease in the monotony of labor.

		Degree of Pla	an Conformity	Persons	Responsible
Ser. No.	Element Description	Complete	Partial	For Cert- ification	For Improving Labor Organ- ization
1	Singling out auxiliary work on servicing an independent function	0.25			
2	Multi-machine-tool (multi-unit) servic- ing	0.25			
3	Combining occupations and operations	0.25			
4	Utilizing brigade forms of labor	0.25			
	Total	1.0			

Setting Labor Norms--Ku

Certification for the factor "setting labor norms" to conform to the plan conditions is carried out with respect to the following elements:

conformity of the standards applied for calculating the norms of labor outlays and service outlays:

specific proportion of the technically justified norms (TON) of production (time) in their total amount at the work place:

assimilation of the design norms of production with the ensuing elimination of supplementary payments for their assimilation;

average percent of fulfillment of production norms.

The total rating of a work place's conformity to the standardized plan (chart) of labor organization is defined as the arithmetical mean of the four constituent factors according to the formula

$$K_{\text{tot}} = \frac{K_1 + K_2 + K_3 + K_4}{4}$$
.

Suppose, for example, that, with respect to the factor "Outfitting and Servicing a Work Place," Element 2--"Technological Organizational Equipment"--was not certified and hence earned a rating of 0, while the factor as a whole received a rating of 0.75 points (the three remaining elements conform to the technical process). With respect to the factor "Planning the Work Place and the Working Conditions," Element 2--"Sanitary-Hygienic Conditions"--was not certified, though it received a total rating of 0.75 points, while the two remaining factors were fully certified, with a rating of 1 point each. In that case, the total rating of the work place in points would amount to

$$K_{\text{tot}} = \frac{0.75 + 0.75 + 1.0 + 1.0}{4} = 0.87$$

Consequently, the work place would be certified. With respect to the factors which received a rating of 0.75 points, organizational-technical measures would be worked out and introduced for the uncertified elements in order to bring them into line with the progressive solutions (the standard plans, NOT charts, and NOT requirements); appointments would be made of persons responsible for working out and introducing organizational-technical measures and the time periods required for carrying them out.

		Degree of Pla	an Conformity	Person	s Responsible
Ser. No.	Element Description	Complete	Partial		For Improve- ment of Labor Norm-Setting
1	Standards being used for labor	0.25			
2	Proportion of technical- ly justified produc- tion (time) norms	0.25			
3	Assimilation of design production (time) norms	0.25			
4	Average percentage of fulfilling existing norms	0.25			
	Total	1.0			

DOCUMENT

Certification of a Job Slot for Its Conformity to Progressive Solutions (to the Standard Plans, NOT Charts, and NOT Requirements)

1. Name and description of enterprise	workshop	_
section		
work place		

4. Conclusion of certification commis	edon			
4. Conclusion of Certification Commis	81011			
5. List of uncertified elements within	n the fact	tors of job-	-slot organ	nization:
6. Organizational-technical measures	for bring	ging a job s	slot into	conformity
with progressive solutions:	, 101 0111	bring a job .	3200 11100 (Joniolmioj
	^			
		dlines		esponsible
Description (contents) of measures	for de-		for de-	for in-
	for de-	for in-	for de-	for in-
	for de- velopment	for in- troduction	for de-	for in-
	for de- velopment	for in- troduction	for de-	for in-

LABOR

LABOR INPUT IN MATERIALS HANDLING REDUCED IN LITHUANIA

Moscow SOTSIALISTICHESKIY TRUD in Russian No 4, Apr 84 pp 38-43

[Article by M. Stankyavinchyus, deputy chairman of the Lithuanian SSR State Committee for Labor: "Reducing Labor Expenditures in Loading-Unloading, Transport and Storage Operations"]

[Text] Several special purpose complex programs, which define the rational use of labor resources and which provide for a growth in labor productivity, have been developed and are being successfully implemented in the Lithuanian SSR. Their advantage over the introduction of separate and mutually uncoordinated measures for new equipment, the scientific organization of labor, its collective forms, etc., is evident. Too often in practice when concentrating one's attention on one factor, all the other components of the problem are lost sight of. This prevents the desired results from being achieved. The interbranch complex program for reducing manual labor in loading-unloading, lifting-transporting, and storage operations in industry, transportation and trade during the llth Five-Year Plan can serve as an example of a system approach to the solution of this or that task in a regional aspect.

The idea for compiling it arose during the development of the program for intensifying industrial production during the period 1981-1985, which was begun in 1978. One of the main sections in it was the one which included measures to mechanize and absolutely reduce manual labor. An analysis of the structure of the number of peat workers engaged in it showed that their percentage in general for industry in 1979 was 49.1 percent, but in loadingunloading and storage operations it was 63.3 percent. As we see, the difference is considerable. It was even more noticeable in the light, furniture, woodworking, food, and local industries. The chain extended further. The major portion of the products of these branches are sold within the republic, in trade organizations. The goods underwent repeated handling in intermediate warehouses and wholesale bases and in retail trade on the way to the consummer. "Bottlenecks" were determined, especially at the industry-transport-trade enterprise (both the wholesale bases and the retail trade enterprises) junctions. By this time, experience in organizational and technical cooperation, which permitted the mechanization of loading-unloading and storage operations

to be accelerated in all chains, had already been acquired in individual cities of Lithuania (Klaypeda and Kaunas).

In connection with this, the republic's Gosplan and State Committee for Labor with the participation of the Academy of Sciences and the ministries and departments was charged with preparing a special purpose complex program to reduce manual labor in the auxiliary processes in individual industrial ministries of union republic and republic subordination, in transportation and in trade during 1981-1985. When developing them, the Gosplan and the State Committee for Labor determined a system of indicators, compiled methodological recommendations, formed working groups for the preparation of branch and combined complex programs, and conducted a seminar for executives in the ministries and departments. The Lithuanian SSR Gosplan's Scientific Research Institute of Economics and National Economy Planning (NIIEP) headed this work.

The first stage in the development of the program was the most complicated and labor-intensive. During this period, the amount and level of labor mechanization in internal and external freight traffic were determined with a consideration for the transshipping operations which exist in the cargo transportation process. In order to calculate the number of workers who are permnamently employed in lifting-transporting, storage, and loading-unloading operations in enterprises and in the organizations of the ministries and departments that were participating in the implementation of the program, a count (the certification) was carried out of this category of personnelincluding those who work with the help of devices and manually -- by trade, work place, shop, section, and warehouse. The requirement for lifting-transporting, loading-unloading and warehouse equipment, which was required both for mechanization and for replacing obsolete equipment, was discovered. Specialized container transport system assets were picked out in each group. The amount of required scientific, research, design, and planning work was established. The interbranch and interdepartmental problems, which had to be resolved during the implementation of the program (centralized production and repair of lifting-transporting equipment, packaging equipment, etc.), were studied.

All of this provided an opportunity to determine the requirement for material and financial resources. These were coordinated in the Lithuanian SSR Gosplan with the actual capabilities in the 11th Five-Year Plan and they were communicated to the ministries and departments as reference points after they had outlined specific measures. Provisions were made to introduce new and improved existing cargo handling and transporting equipment, to improve the material technical base, to improve the system for servicing and repairing technical systems, to regulate planning and the operational control of lifting-transporting and storage operations, to begin the training, retraining and

^{*}Cf. SOTSIALISTICHESKIY TRUD, No 10, 1983, pp 50-57 and No 11, pp 48-

qualification improvement of personnel, etc. In this regard, it was required that they not limit themselves only to measures for the period 1981-1985 but also -- where possible -- to plan for problems out to 1990.

As a result of a careful analysis of the actual state of affairs and of resources, a general goal was defined: to decrease by 3,000 people the number of workers employed in loading-unloading, lifting-transporting and storage operations for the ministries and departments that were included in the program and to increase the amount of freight shipments in containers using general-use motor vehicle transport by almost a third. The measures, which would insure the achievement of this goal at all levels (republic, department, enterprise, and organization), were developed along several main avenues.

First, it was planned to expand shipments of goods (especially food) from the industrial enterprises to the trade network in packaging equipment. This permitted the number of loaders in the stores and the expediters, who accompany the freight, to be considerably reduced. Second, it was decided to unify -- where possible -- the resources for delivering freight from the industrial enterprises to the trade network and also to improve their use both by the sender and by the receiver. Third, provisions were made to organize the centralized repair of lifting-transporting equipment and the manufacturing of packaging equipment so that it would be possible to deal more effectively with mechanization systems and material and labor resources. Fourth, plans were made to raise the level of rate-setting and labor organization in loading-unloading, lifting-transporting, and storage operations in induscry, trade and transport and also to begin the preparation of specialists on the scientific organization of labor in these processes. Finally, the impending scientific research in this area, especially at the republic level, was coordinated a very great deal. The measures, which were included in the program, provided for a decrease in the number of manual workers in specific sections and operations.

The drafts of the ministry and department programs were reviewed in the problem-solving and interbranch working groups, in the State Committee for Labor, and finally, in the republic's Gosplan. this permitted the inaccuracies, which were detected, to be effectively corrected, the lack of balance to be eliminated, and these documents to be linked with the five-year plan, including the one for capital investments.

A few words about the program's main indicators. For the ministries and departments that are included in it, the volume of external freight traffic (arriving and departing) will grow by almost 15 percent by 1985 when compared with 1980 while the amount of work, expressed in ton-transshipments, will increase by only 10.9 percent. This reflects a purposeful decrease in intervening transshipments during the handling of the freight. The level of mechanization in external freight traffic will increase by 6.4 points, and in internal and intershop — by 5.6 points.

The amount of container and package shipments, which must increase by 52.2 percent during the five-year period, reflect the growth in the mechanization

of loading-unloading operations and in the effectiveness of using transportation systems and loading-unloading devices. Shipments of goods in packaging equipment (specialized containers and pallets that are designed for use directly in a store's salesroom) are also included here. Certain experience in organizing these shipments, in particular -- as has already been mentioned—by the industrial enterprises and trade organizations of Klaypeda, has been accumulated in the republic. The volume of shipments in packaging equipment directly from the industrial enterprises must grow 2.7-fold during the five-year period, and from wholesale trade bases -- twofold.

During the 11th Five-Year Plan, the percentage of workers, who are performing loading-unloading, lifting-transporting and storage operations using the mechanized method must increase from 23.9 percent to 32.9 percent in the ministries and departments that are included in the program as compared to 1980. It is planned to decrease the number of those employed in these sectors by 3,200 people (somewhat more than it was originally proposed).

The necessary capital investments, which are reflected in the five-year plan for economic and social development (approximately 70 million rubles), have also been provided to carry out the measures which are contained in the program. The major portion of them has been directed toward the mechanization and automation of work, including 31.7 percent for the acquisition of containers and 43.9 percent — for ground-type transportation and special loading unloading warehouse equipment. The structure of capital investments for acquiring equipment reflects in the best way possible the main directions of the measures that are being carried out during the current five-year plan in industry and trade. In industry, ground-type transportation (36.4 percent), the acquisition of containers and packaging (23 percent) and the introduction of continuous transport require most of the expenditures; in trade, the main expenditures are connected with the acquisition of containers and packaging (46 percent), ground-type transport (28.8 percent) and special loading-unloading warehouse equipment.

A great deal remains to be done in general-use motor vehicle transport enterprises. It is planned to renovate the automotive container park, part of which will be manufactured in automotive transport enterprises. ZIL-130 vehicles are being equipped with gantry cranes having a lifting capacity of three tons in order to raise the mechanization level of loading-unloading operations and to decrease demurrage during the intra-city handling of containers. Movement schedules have been made more precise by the consigners, transport workers and consignees. This has considerably increased the turn-over of transportation. Based on the assigned task -- to transport more goods in containers and packages, plans have been made to use specialized transportation more widely, having adapted it to container shipments. As a result of implementing all of these measures, a 72 percent growth in the volume of shipments should be assured by increasing labor productivity.

Thus, if one sums up results, the general indicators for the effectiveness of the program for decreasing the percentage of manual labor in loading-unloading, lifting-transporting and storage operations appear as follows. During the years of the 11th Five-Year Plan, the absolute number of those employed in manual labor in these sectors should be decreased by 3,200 people. In this regard, the relative freeing will reach more than 6,000 people. The overall economic effect will reach approximately 8.7 million rubles, without considering the enormous social gain — the radical improvement in work conditions and the increase in work standards.

How is the carrying out of the program being organized in practice? To answer briefly, through the appropriate sections of the economic and social development plan. The control system is also playing an important role. The republic's State Committee for Labor is exercising operational control, organizing inspections on the spot; and the Lithuanian SSR Gosplan's Scientific Research Institute of Economics and National Economy Planning is engaged in a general analysis based on the statistical accounts and information of the ministries and departments.

Our close cooperation and effective mutual information are, in general, providing good results. During the last period, the way which the program was being implemented, was checked in five ministries (the Ministry of the Meat and Dairy Industry, the Ministry of the Construction Materials Industry, the Ministry of Procurement, the Ministry of the Food Industry, and the Ministry of the Furniture and Wood Processing Industry); and the general results of its implementation during the two years of the five-year plan were summed up by the institute. What were they? The absolute number of workers, who were engaged in loading-unloading, lifting-transporting and storage operations, decreased by 1,636 people instead of the 1,425 which had been estimated. It is necessary to point out especially that all of the ministries and departments are progressing exactly on schedule according to all of the program's main indicators.

What, everything is going smoothly for us, so to say "there is no cloud in the sky"? Of course not. During the two years, almost one-fifth of the measures, which had been provided for by the program, were introduced — of them, approximately 27 percent for organizational reasons, the same percentage in connection with the failure to fulfill capital investment plans, and approximately 46 percent because of unsatisfactory logistics support. For the sake of fairness, it is necessary to point out that the ministries and departments effectively replaced many measures with others. This permitted the main economic indicators, which had been outlined in the program, to be achieved on the whole.

At the same time, however, shortcomings and errors in planning and especially in logistics support were revealed. You see, even some measures, which were included in the state economic and social development plan, remained unfull-filled. Moreover, does not everything about which we are talking and about the known reserves, which were simply not taken into consideration by the program, testify to this? The inspections on the spot confirmed to a large degree the correctness of this conclusion. This means that we did not manage to completely avoid the general shortcomings in our plans — caution in the achieved results and rates, lack of balance etc.— during the development of

the complex program. The need for a definite adjustment has matured — the more so since there are inaccuracies in the original counting of the number of workers, who are employed in loading-unloading, lifting-transporting and storage operations, for the individual ministries and departments.

Furthermore, more than 50 percent of all of the expenditures for the program actually were directed toward maintaining the capacity of the available pool of the different lifting-transporting devices to work. It is natural that these expenditures did not affect the general level of labor mechanization. The main restraining factor is the shortage of ground-type transport systems, especially the shortage of electric loaders. In individual departments, for example, in the food and meat and dairy industries, this did not permit the capabilities of container and packaged shipments to be effectively used.

There is another circumstance. It should have been possible to improve the reliability of operation of lifting-transporting equipment by better organizing overhauls and technical maintenance. Here, one of the ways is centralization. A great deal is being done in the republic in this direction. Thus, it is being proposed in one of the repair enterprises of the Ministry of Motor Transport and Highways to begin the centralized overhaul of electric loaders. They have begun to manufacture systems for the small-scale mechanization of lifting-transporting operations in individual enterprises of the Ministry of Local Industry, the Administration of the Peat Industry and several other republic departments. Large difficulties, however, are being encountered on this path. Here and there, inertia and a purely bureaucratic approach to the solution of this or that question are still very much alive. For this reason, we have still not managed to centralize, for example, the manufacturing of necessary packaging equipment and trays for the food industry, etc. Meanwhile, the principle "Make everything yourself" is costing a pretty penny and is leading to the dissipation of material and labor resources.

In connection with this, I would like to express the following observations.

A special purpose complex program for reducing manual and heavy physical labor during the period to 2000 is now being developed in the country. The certification of manual operations, whose data should serve as the starting base for organizing — beginning with the 12th Five-Year Plan— the manual labor mechanization system industry as a very important and independent branch of the national economy, is being conducted. Labor bodies cannot stand aside from such an important task. At all levels, we must assume the role of a persistent customer. You see, this question not only touches a significant number of workers in the national economy but also is directly linked with improving labor productivity and quality.

The reduction of manual labor, including that in loading-unloading operations, begins with the design of this or that enterprise. It must be confessed that many of their authors rely only on today, forming the main producer goods which not only do not decrease but even increase the number of people employed in manual labor. It is necessary to struggle decisively against this situation, and our task is to firm up requirements when coordinating tasks during planning. Today, there are already examples of a completely automated warehouse

using electronic computers. It is necessary to see to it that its widespread mechanization and automation do not depend only on the initiative and enterprise of individual economic managers (although this is of no small importance also) but that they become the norm of technical policy.

The experience in developing the program and especially the organization of its fulfillment and operational control have revealed another large deficiency—the absence of accurate data on the state of affairs. Without them, it is simply impossible to manage this or that process. At first glance, the statistics offer such different figures and indicators that it would even seem out of place to raise this question. However, if one looks at it substantively, then it turns that they cannot always be simply reduced to some system not only because of the disparity in their various forms but also for methodological reasons. It often turns out that everything is well based on some forms of accounting, but based on others ... it is the reverse. In this case, I have in mind the forms 1-nt (lifting-transporting operations), 2-nt, 2T (rt), etc. Of course, the enterprises, which often make mistakes and distort the actual state of affairs, have quite a bit of guilt here. However, it seems that it is necessary to perform the accounting in this direction.

Complex special purpose programs now occupy an ever larger place in national economic planning, and accounting must effectively respond to this. In other words, economic and state management bodies must receive information which is not about everything in general but which is systematized to the maximum for the main directions (programs) and sufficiently effective. This will permit the necessary adjustments to be made in this or that process in a timely fashion. In our opinion, having made statistical accounting more purposeful, it would be possible, on the one hand, to significantly reduce the number of indicators being considered, and on the other hand, to see to it that ministries and departments cease to ask enterprises for different information which they are often compelled to do "not from the good life".

Beginning with the 12th Five-Year Plan, the development of a system of all-union, republic (interrepublic) and branch (interbranch) scientific and technical programs was provided for by the CPSU Central Committee and USSR Council of Minister decree "On Measures To Accelerate Scientific and Technical Progress in the National Economy". The appropriate republic organizations, primarily Gosplan, and in the area of labor — the State Committee for Labor are now determining the strategic directions of the work for the impending five-year plan and out to 2000. Concerning the reduction of the percentage of manual labor, it is evident that all questions will be resolved in the all-union program. Here, the acquired experience has already served us well. It seems that interbranch measures should preserve their purposefulness in the regional program and flow organically into it in a separate bloc (subsystem). Practice confirms the high economic and social effectiveness of this solution.

K. U. Chernenko, general secretary of the party's Central Committee, pointed out during the special February 1984 CPSU Central Committee Plenum: "The

intensification, the accelerated introduction of the achievements of science and technology into production, the implementation of large-scale complex programs -- all of this should in the final analysis raise the production forces of our society to a qualitatively new level." This is our main goal, and labor bodies have been called upon to play a definite and no small role in achieving it.

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LABOR

LABOR INTENSIFICATION PROBLEMS IN NONPRODUCTIVE SECTOR CITED

Moscow EKONOMICHESKIYE NAUKI in Russian No 4, Apr 84 pp 64-67

[Article by V. Korchagin, doctor of economic sciences: "Some Labor Intensification Problems in the Nonproductive Sector"]

[Text] Expanded reproduction under the conditions of mature socialism is being directed not only by the economic policy but also by the social policy of the CPSU and the Soviet state. It cannot be otherwise, because the "final goal of our efforts in the economic sector is improvement in the people's living conditions."* Strengthening of the tie between economic and social factors of development means an increase in the role of the non-productive sector. More and more resources are being allocated to it. For example, if the increase in the fixed capital of nonproductive sectors lagged behind the national income growth rates during the 8th Five-Year Plan period, then the correlation of the above-mentioned indicators was already turning out in favor of these sectors during the 9th and 10th Five-Year Plan period.

Accelerated development of the nonproductive sector produces a direct effect such as immediate improvement in the social conditions of a person's activity as well as an indirect effect such as an increase in national labor productivity and national income obtained by such an improvement. However, a conclusion should not be made from this about the advisability of the highest increase in investments in the development of industries in the nonproductive sector. It is always necessary to take into account both the decisive importance of physical production in the life of society and the inevitable limitation of resources at its disposal. The nonproductive sector represents a kind of rival of physical production from the standpoint of expenditure of them. At the present time, manpower resources have become the most important limiting factor in economic development and therefore in the nonproductive sphere. Under these conditions, strict limitation on the increase in employment is an objective necessity not only in physical production but also in sectors in the nonproductive sphere. With respect to some of them, the task of absolute reduction in the number of personnel (primary management staff) is an urgent one. The maintenance and, what is more, an increase in the effect of the non-productive sphere's

^{*&}quot;Materialy Plenuma Tsentral'novo Komiteta KPSS 14-15 iyunya 1983 goda [Materials on the Plenum of the CPSU Central Committee 14-15 June 1983," Moscow, 1983, p 13.

functioning under conditions of a considerably smaller increase in the number of its employees are possible only under conditions of its intensification. The latter's importance is growing because of the constant increase in the economic potential of the nonproductive sphere. The number of employees working in it was 70 percent higher in 1980 than in 1965, and the fixed capital cost increased 2.5-fold. In 1981, 26.3 percent of the population working in the national economy and 33.6 percent of fixed capital were included in the nonproductive sphere's share. If trade is included—which occupies a somewhat "borderline" position between physical production and nonproductive sectors—then the stated relative share is 34.1 and 37.9 percent, respectively.

Because of the specifics of the nonproductive sphere, implementation of intensification processes in it takes different forms from those common for physical production. Let us examine this in somewhat more detail.

If it is a matter of the continuation of a production process in the nonproductive sphere (storage, finishing, and custom manufacturing of finished items according to an order), then in general the intensification forms characteristic of physical production (within the framework of the "machineperson" system) are valid here. However, the difference is that they interact closely with the functioning of the "person-person" system. Therefore, a differentiated approach is necessary to substantiate measures aimed at intensification of work that provides implementation or continuation of a production process in the nonproductive sphere on one hand and work that requires direct contact with the parts of the public served on the other. Mutual intertwining of the above-mentioned types of work in itself imposes specific requirements for the nature of the course of intensification processes in the nonproductive sphere. For example, introduction of new equipment and means of mechanization in domestic service and trade, while helping to increase the labor productivity of workers employed here and to improve the utilization of fixed capital, must at the same time contribute to improvement in the quality of the services rendered. In this, the rates of intensification in services depend on the development of these sectors' material-technical base. As statistical data show, the production volume of industrial equipment and spare parts for it intended for trade and public eating enterprises more than doubled during the 8th Five-Year Plan period, increased 1.6-fold during the 9th Five-Year Plan period, and was 13 percent higher during the 10th Five-Year Plan period. In the 1971-1981 period, the growth rate of the over-all volume of machine-building production was 1.5 times higher than the growth rate of industrial equipment production for trade and public eating enterprises.* Such a ratio could hardly be called a sufficiently rational one.

The problems of raising the level of intensification in sectors in the non-productive sphere that operate on the basis of the "person-person" system,

^{*&}quot;Narodnoye khozyaystvo SSSR [USSR National Economy] 1922-1982," Moscow, 1982, p 194.

such as education, health care, and culture, are especially complicated. The modes of production common for all sectors such as certain equipment and materials and energy are also used. However, saving on live labor is the most important direction of intensification in these sectors; this in turn usually requires additional expenditure of material resources. For example, in health care, introduction of the means of full mechanization of the process of caring for patients makes it possible to sharply decrease labor input for manual work related primarily to auxiliary activity, which is very labor intensive and where, in addition, there exists a great shortage of personnel.

According to our estimates, in the nonproductive sphere as a whole, approximately 38 percent of the over-all volume of labor input is spent on work of an auxiliary nature (cleaning of the areas and premises, servicing of engineering equipment in buildings, and others). If one takes into account that the providing of our country's entire population with workers of the nonproductive sphere increased 50 percent during the 1966-1980 period, then the need for workers in the auxiliary services (yard men, office cleaners, hospital attendants, etc.) has also increased approximately 50 percent. With the present technical-organizational bases of work implementation in the nonproductive sphere remaining as they are, the need for this kind of workers will inevitably continue to grow. It is also inevitable under the conditions--typical for our society--of the steady raising of the population's cultural and technical standards that difficulties in attracting people to do this type of work will also increase. In addition, according to estimates, there are approximately one million unfilled vacancies for service and building maintenance personnel, workers, and hospital attendants, etc. at the present time. The staffs of maids in rest homes, hotels, and tourist centers are less than half filled. A similar picture is found in schools, VUZ's, and tekhnikums. The acute shortage of workers has a serious adverse effect on the quality of work performed in the nonproductive sphere. Only one solution can be found to correct this situation: to take a decisive course toward intensification of auxiliary work first of all.

Consistent putting of this course into practice requires the development and improvement of the material-technical base of the nonproductive sphere's sectors. However, it must be taken into account that health care facilities, for example, have been equipped at different levels with the necessary means of small-scale mechanization and even engineering equipment, including central heating, hot and cold water, and sewer systems. At the present time, the fixed capital cost per hospital bed in an oblast hospital is, on the average, approximately 2.5 times higher than in district hospitals. The extent of equipment of polyclinic departments in oblast hospitals with fixed capital differs to the same extent in comparison with district hospitals. The primary mechanization of auxiliary work must become a basic direction of the intensification of health care services in the near future, although this direction must be followed with due regard to the considerable existing differentiation.

One of the most effective ways to solve the intensification problem in the nonproductive sphere is to enlarge its institutions. Much has been done

already in this direction. In 1965, there were 85 beds per hospital on the average, and in 1981, there 146 beds on the average. The average number of student places in general education day schools increased from 228 in 1965 to 309 in 1981. Of course, the enlargement of institutions in the nonproductive sphere in itself is still not an indicator of the intensification process. It creates favorable objective conditions for it. In particular, the decrease in the number of hospitals with a considerable increase in the over-all number of hospital beds contributes to an increase in the level of provision of hospitals with specialized consulting rooms and equipment and consequently contributes to an improvement in service for the public.

Intensification of auxiliary work also presupposes an increase in workers' incentive in its implementation. At the same time, the existing methods of labor and wage organization still do not ensure its dependence on the volume and quality of work actually accomplished. Cases of credited wages [being given] on the basis of merely appearing at the work place and not for actual results of activity are especially common precisely in auxiliary work. Improvement of norm setting for work and improvement of the calculation of the volume and quality of actually accomplished work and the corresponding wage change for it—all this must contribute not only to the change in the volume and quality of work but also people's attitude toward it. Introduction of the collective form of labor and wage organization deserves particularly great attention.

Under the conditions of intensification of auxiliary work, its image as being simple and one-dimensional must be abandoned. In reality, its implementation on a qualitatively higher level and with reduced labor input requires higher skill on the part of workers. On the basis of this, in our opinion, it would be advisable to introduce skill grades (categories) for service and building maintenance personnel: hospital attendants, office cleaners, maids, and other workers in auxiliary services; this is especially necessary in the conditions of the increasingly wide use of small-scale means of mechanization, rational labor techniques, etc.

Introduction of progressive methods of labor organization in auxiliary work in the nonproductive sphere presupposes establishment of a combination of measures encompassing improvement of norm setting for labor, introduction of a regulated method of conducting work, teaching of rational techniques for conducting it, determination of the optimum arrangement of personnel, etc. The brigade form of labor and wage organization must be used more widely. Implementation of these measures will make it possible to limit growth and reduce the number of workers of the management staff and some other sectors of the nonproductive sphere without harm to the volume of the basic activity and quality of services.

Intensification of the basic labor processes taking place in the nonproductive sphere is a complicated problem. The most important direction for intensification of the basic work in social-cultural sectors and particularly in health care, in our opinion, may be the reduction of the over-all work time for conducting it. For example, in health care, especially in hospital service, the work done every day produces only a "partial product."

The final effect (the patient's recovery) is the result of the efforts of the work collective over the course of a number of work days. Reduction of treatment time without a decrease in quality could become a factor in increasing the economic savings in the sector. However as statistical data show, in recent years there has been a characteristic tendency toward increasing the average number of days that patients stay in the hospital. If in 1975, this indicator was 17.4 days in city hospitals, then in 1979, it was 17.5 days, and in rural hospitals it was 13.7 and 14.2 days respectively. Stabilization and even reduction of the average number of days that a patient stays in the hospital without decreasing the effectiveness of health care require increased continuity in examining patients admitted to the hospital from polyclinics, improvement in the activity of diagnostic services, and finally, establishment of after-care departments, "hospitals at home," and other flexible forms of service for patients.

At the present time, an experiment authorized by the USSR Council of Ministers is being conducted in several hospitals on more rational utilization of hospital bed capacity by patients. Its goal is to develop measures aimed at increasing work efficiency in health care institutions by improving the diagnostic-treatment process and reduction of time for examination and treatment of patients. Expenditures for maintenance of hospitals participating in the experiment are planned in accordance with generally established payment norms. In this, funds for purchasing medicine and dressings are determined on the basis of calculating the expenditures for one hospital patient by multiplication of the daily rate of consumption of each specialized department for the average duration of a patient's stay in a hospital bed (in days) that was established in these departments during the year preceding the experiment. These allocations and also expenditures for wages are increased in necessary cases. One of the conditions for conducting the experiment is the establishment of the additional indicator of "bed turnover" along with the planned indicators of the hospital's activity. If an increase in this indicator is achieved during the experiment as a result of a reduction in the duration of a patient's stay in the hospital, then the medical personnel of the treatment departments receive a supplementary payment in addition to their salary. The amount of the supplementary payment depends on how much the "bed turnover" increases: If it increases from 3 to 5 percent, the payment reaches 10 percent, if the indicator increases from 5 to 10 percent, the payment reaches 15 percent, and if this indicator increases 10 percent, then the payment reaches 20 percent. The supplementary payment is made in accordance with the work results per month provided that the proper quality of medical aid is ensured--determined by expert evaluation--and that there are no legitimate complaints. The amount of supplementary payments to workers is established with due regard to each one's personal participation in the result achieved and compliance with labor discipline. The experiment discussed here has just started, and it is too early to judge its effectiveness; it is possible, however, to expect that certain positive results will be achieved.

Another type of intensification typical for the nonproductive sphere is based on the replacement of less skilled labor with more skilled labor, which produces a greater economic effect.

For example, wider utilization of technical means, advanced teaching methods, and special techniques—in other words, the use of work forms that require more highly qualified performers—help to improve the teaching process in schools. Favorable preconditions exist for the realization of this direction: If in the 1965/66 school year, 41.5 percent of teachers had a higher education, then in the 1981/82 school year, there were already 73.6 percent with higher education. The number of teachers with a general secondary education, a specialized secondary (nonpedagogical) education, or without a complete secondary education decreased from 10.3 to 3.8 percent.

As it has already been mentioned, improvement in wage conditions must help the intensification of the nonproductive sphere. And this does not apply only to workers occupied with auxiliary operations. It is necessary to increase the differentiation of wages of doctors, teachers, and other workers with due regard to skill and the quality and final results of the work that they achieve.

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CSO: 1828/123

LABOR

NEW LABOR INCENTIVES EXPLORED IN EXPERIMENT

Moscow SOTSIALISTICHESKIY TRUD in Russian No 4, Apr 84 pp 76-81

[Article by V. Rakoti, deputy chief of the Department of Wages, USSR State Committee for Labor and Social Problems: "New Possibilities for Providing Labor Incentives"]

[Text] Pursuant to the decree of the CPSU Central Committee and the USSR Council of Ministers, five industrial ministries -- the Ministry of Heavy and Transport Machine Building, the Ministry of the Electrical Equipment Industry, the UkSSR Ministry of the Food Industry, the BSSR Ministry of Light Industry, and the LiSSR Ministry of Local Industry-have begun an extensive economic experiment as of 1 January of this year. Its purpose in part is to provide labor incentives: to create conditions that will stimulate the entire worker collective and each worker severally to attain higher profits; to develop initiative and entrepreneurship; to accelerate the progress in science and technology; and to make production more intensive. To this end, parallel with the successive introduction of the already proven forms and methods of management, it has been recognized as necessary to broaden the authority of the production associations (or enterprises) in planning and economic activity, and at the same time to make them more accountable for the work results. Here an important place is assigned to measures that provide stronger incentives for highly productive work of good quality. In terms of the nature of their influence, these measures are not identical. Some of them directly influence the workers' interests: their additional pay, allowances, higher salaries, bonuses, etc. Others influence the workers' interests indirectly.

The new possibilities for providing stronger labor incentives are associated first of all with the greater role of additional pay and allowances to the wage rates and salaries.

The constant rise of the workers' craftsmanship and skill is important for improving the profitability and efficiency of production. To stimulate this rise, the enterprises participating in the experiment have been authorized to reward high craftsmanship with higher additional pay to the wage rates of workers assigned to especially responsible work: up to 16 percent for workers in category IV, up to 20 percent in category V, and up to 24 percent in category VI (the maximum allowable at present is 12 percent of the wage rate; in other words, the percentual limits are being doubled). It is interesting to note that the enterprises themselves determine which of their workers are

highly skilled, and which of the sections are the most important ones. The enterprises have also been authorized to set the allowances of their highly qualified engineering, technical and other white-collar personnel; the allowances may amount up to 50 percent of their salaries, which is a substantial increase. (At present, allowances up to this limit may be paid only to designers and production engineers; other engineering and technical personnel may obtain allowances only up to 30 percent of their salary.) This measure alleviates to some extent the disproportion between the wage level of workers and the salary level of the engineering and technical personnel. This authority, of course, does not give the enterprises unlimited independence. After all, higher additional pay and allowances can be paid only from savings in the payroll fund, and these savings must be achieved by reducing the labor intensity of production.

It should be noted that the amount of additional pay or allowance must be determined with due consideration for each worker's personal contributions to the following: the development and introduction of new, highly efficient machinery and technology; the reduction of production's labor-, material- and energy-intensity; the improvement of product quality; and the fulfillment of other indicators. It is very significant that additional pay and allowances are not a fixed part of earnings. As the work performance worsens, they may be reduced or revoked entirely.

As the combination of two or more skills or jobs spreads, it exceeds more and more frequently a single category of workers. According to the system now in place, the supervising organs must certify the list of combined skills. So that initiative may develop more fully, such a list is not required for the enterprises participating in the economic experiment.

In the productive branches, the schedules of wage rates and salaries were last increased in 1972-1975. Since then, the growth of production and the rise of its scientific and technological level have wrought qualitative changes in labor. To reflect these changes in remuneration, the enterprises of the Ministry of Heavy and Transport Machine Building and the Ministry of the Electrical Equipment Industry have been authorized to pay their highly qualified workers in especially important and responsible jobs monthly salaries of up to 250 rubles. (Ordinarily the enterprises may only pay salaries not exceeding 200 rubles a month.) To ensure sensible pay ratios, there is a provision that the increased salaries of workers may not exceed the base salary plus 50-percent allowance of a section foreman in category I. The new, higher salaries for workers make it possible to introduce scientifically substantiated norms and to improve the setting of work norms for especially important and responsible jobs.

In addition, the conditions set for the experiment take into account the peculiarities of the individual branches. In the food industry, and in light industry and local industry, for example, the salaries of highly qualified workers may be raised only up to 230 rubles per month. This is due to the fact that the salary schedules in these industries are lower than in machine building. It will be remembered that allowances may be paid as of 1983 to the salaries of all enterprise managers other than directors. Now the republic ministers of the food industry, light industry and local industry have been given

authority to approve allowances to the salaries of enterprise directors as well, from the savings in the payroll fund. In the Ukraine there has evolved a three-level, instead of a two-level, system of managing the food industry. To gain experience with incentives for the highly qualified specialists at the middle level, the oblast administrations have been authorized to give the workers in their apparatus who have higher qualifications an allowance of up to 30 percent of their salary, or up to 50 percent in the case of production engineers, using for this purpose up to 1 percent of the savings in the oblast administration's payroll fund.

It is essential to note a basically new feature of the experiment's conditions, one that is of considerable importance from the viewpoint of how additional pay, allowances and higher salaries are disbursed. While it is only natural to exclude from the payroll fund the amount of overspending from it during the base year, inclusion of the savings in the payroll fund based on the volume of work performed in the base year goes a long way toward establishing the conditions necessary to provide incentives for highly productive labor. Consider a worker for whom additional pay of 30 rubles a month is approved, beginning with the fourth quarter, from the savings in the payroll fund. If the payroll fund were planned in the ordinary manner, it would be necessary to include in the base year's payroll fund 3 x 30 = 90 rubles, and 12 x 30 = 360 rubles would be needed for the worker's additional pay the following year. To avoid overspending from the payroll fund, it would be necessary to provide additional pay only that one quarter, or to reduce to one-fourth the amount of additional pay the next year. However, both variants would be in conflict with the experiment's conditions for providing additional pay: once granted, additional pay can be reduced or revoked only if the indicators of work performance worsen. Therefore the inclusion of the payroll fund's relative savings the preceding year in the payroll fund planned for the following year is an important step toward perfecting the source from which deserved earnings are paid.

Considerably more changes have been introduced in the system of paying bonuses linked to the basic results of economic activity.

One of the fundamental changes in the system of paying bonuses is a changeover from paying one bonus for several indicators, to paying several bonuses, one for each performance indicator, which in practice means bonuses by factors. This should ensure a close link between the rate of the bonus and the improvement of each performance indicator.

The changeover to paying bonuses by factors required the solution of several problems, particularly of ensuring the leading role of the main indicator for the payment of bonuses, and also the necessary ratios between the amounts of the partial bonuses computed on the basis of the individual indicators.

When the number of criteria for the evaluation of economic activity is considerable and the criteria are not equal in their significance, the incentive role of bonuses depends to a large extent on their concentration first of all on the decisive production indicators. One such decisive indicator at present is fulfillment of the plan in terms of the volume of sales, taking into consideration deliveries in accordance with the concluded contracts. Among the other indicators to which the bonuses for enteprise managers are linked, this

indicator stands out in terms of the large proportion of the bonus that is paid contingent on this indicator's fulfillment. The Model Rules for the Payment of Bonuses to Enterprise Workers in the Electrical Equipment, Food and Light Industries directly states that 60 percent of the bonus currently paid in industry contingent on the basic results of economic activity must now be linked to the fulfillment of contractual deliveries. Within the Ministry of Heavy and Transport Machine Building, more than half of the bonus is to be paid in this manner. Within the LiSSR Ministry of Local Industry, the entire bonus will be paid contingent on the fulfillment of deliveries as specified in the contracts.

Moreover, the bonuses for fulfilling contractual obligations are paid independently of the other performance indicators. At the same time, bonuses for the fulfillment of the other basic indicators are contingent on not exceeding the maximum permissible percentage of short shipments in contractual deliveries. When short shipments exceed this limits, no bonuses are paid on the basis of the other performance indicators. Finally, it should be noted that a special bonus is being introduced for the overall fulfillment of contractual deliveries during the year. For enterprise managers these bonuses may amount to three times their salary and are paid over and above the specified maximum rates.

On the basis of the practice that has evolved, it can be expected that the same conditions will be set in the experiment also for many of the engineers, technicians and employees, primarily within the enterprise's administrative apparatus, and for many of the workers as well. Of course, the peculiarities of providing incentives for them will be taken into consideration

The set of the basic indicators of economic activity, on the fulfillment and overfulfillment of which the bonuses of enterprise managers depend, has changed noticeably. Only the main evaluation indicator, fulfillment of deliveries as specified in the contracts, is employed by every ministry. So far as the other indicators are concerned, their application depends on the peculiarities of the industry in question. In machine building, incentives are provided to raise labor productivity and reduce the total cost per ruble of output; in light industry and the food industry, to raise the proportion of products of higher quality within the total output and increase profit; and in local industry, to achieve a net increase of profit. In addition, the rise of labor productivity is one of the basic indicators for the payment of bonuses in light industry.

At the same time, significant changes have been made in the schedule of principal products, their list being shortened considerably. The point is that, on the one hand, the schedule duplicates the indicator of contractual deliveries; and on the other hand, it takes into account also the intraplant turnover. We cannot dispense with planning the schedule of principal products, because they are needed to compile input-output tables. But that does not mean that the schedule of principal products must be taken into consideration when evaluating the results. According to the system now in place, however, failure to fulfill even one item in the schedule of principal products is equivalent to not fulfilling a basic indicator for bonuses, including the fulfillment of contractual deliveries (in such cases the workers lose entirely their right to a bonus).

All the existing ceilings on the rates of bonuses for the basic results of economic activity have been retained in principle. However, the ceiling—half the monthly salary—now applies to only two indicators for paying bonuses (within the Ministry of Heavy and Transport Machine Building and the Ministry of the Electrical Equipment Industry, for example, to contractual deliveries and to the rise of labor productivity). The bonus for cost reduction or the rise (net increase) of profit has a ceiling adopted in industry for expenditures on materials: 25 percent of the [monthly] salary. In addition, the ceiling may be increased by 10 percent on bonuses for workers from the payroll fund when the brigade performs its assigned volume of work with fewer workers; and bonuses of up to three times the annual salary, over and above the specified ceilings, may be paid to managers and other specialists for developing and introducing new equipment that meets or exceeds the world standards.

Some of the principles for determining the rates of personal premiums have been changed. The purpose of these changes is to increase the effectiveness of the bonuses paid to individual workers, within the limits of the resources earmarked for economic incentives.

To achieve a more prudent expenditure of resources from the payroll fund within the industrial ministries (except the UkSSR Ministry of the Food Industry), there are provisions to commensurately reduce the bonuses paid to managers when wages and salaries rise faster than labor productivity, in which case a proportion of the economic incentive fund must be held in reserve. In the food industry there are no provisions for holding a part of this fund in reserve.

In all five ministries there are regulations on determining the rates of the bonuses for reducing the cost per ruble of output or for the rise (net increase) of profit. There is no bonus simply for fulfilling this indicator as planned. The bonus is paid for every 10 percentage points of cost reduction or for every percentage point of rise in profit, i.e., in the same manner as the allocations to the economic incentive fund are made. This ensures a direct link between higher bonuses, and the source from which the bonuses are paid. This is an important step toward strengthening the link between personal bonuses and economic incentives for the entire worker collective.

According to the system now in effect, the bonuses for the basic results of economic activity can be reduced by as much as 50 percent when the plans for new technology are not fulfilled. Earlier it was possible to reduce the bonus rates by 5 to 10 percent and still satisfy the regulations, even though one of the most important performance indicators was not fulfilled. The new regulations specify that in such cases the bonuses for managers of the enterprises included in the economic experiment must be reduced by at least 25 percent.

The peculiarities of the individual industries have been taken into consideration in determining the rates of the bonuses. Within the Ministry of Heavy and Transport Machine Building and the Ministry of the Electrical Equipment Industry it is permissible to use the coefficient of work participation in providing incentives not only for workers, but for engineers, technicians and employees as well. Within the BSSR Ministry of Ligh Industry there are provisions to differentiate the managers' bonus rates in accordance with the quality and volumes of the products for which there is increased consumer demand.

This is intended to strengthen the link between rising bonus rates on the one hand, and the improvement of the quantitative and qualitative results of economic activity on the other.

The broadening of the enterprises' rights in planning and economic activity, and their greater accountability for the results of their work are intended to ensure noticeable changes in the acceleration of the growth rate of production and in the rise of its efficiency.

A comparison of the 1984 plan with the results reported for 1983 shows that economic incentives alone—independently of the set of organizational, technical, economic and other measures—cannot produce the necessary effect. Therefore it is only natural that closer attention has been devoted in the period of preparations for the experiment to the questions of balancing the plan, improving the supply of materials and equipment, financing, ensuring the needs of the enterprises within the limit of their contractual work, etc. The economic mechanism's perfection must unquestionably manifest itself in the greater efficiency of production.

The economic experiment has just begun, but the prospects of solving some of the problems in conjunction with providing work incentives already are being examined.

The December 1983 Plenum of the CPSU Central Committee seriously criticized the widespread practice of some ministries to use the maximum permissible percentage of short shipments as a loophole in assessing the fulfillment of contractual deliveries. Pursuant to the 24 August 1981 guidelines now in force, the percentage of short shipments may not exceed 2 percent of sales, and only exceptionally 3 percent. The ministry or central agency sets the specific limit on short shipments. In 1983, regrettably, several ministries of machine building specified the maximum limit for practically half of their enterprises.

Parallel with the directive measures for steadily reducing the permissible limit on short shipments, it would be expedient, in our opinion, to adopt also economic measures that would give the enterprises disincentives to keep the percentage of short shipments as low as possible, so that eventually it will be reduced to zero. To this end the system that is in place could be supplemented by provisions to reduce the planned economic incentive fund, and the planned bonus rates of managers, for every percentage point of short shipments. To make this sanction painful, its rates could be set progressively.

Then many enterprise managers will stop to think what percentage of short shipments is the most advantageous for them, considering their production possibilities.

The base for computing bonuses is the wage rate or salary per schedule, plus the additional pay or allowance. The conditions of the experiment provide for increases of the rates of additional pay and allowances. Consequently, if the already specified bonus rates (in percent) are maintained, the bonuses will increase relative to the wage rates and salaries per schedule. Let us assume that a worker paid time wages gets a bonus of 30 percent of his wage rate. If the wage rate is 100 rubles, the premium will be 30 rubles. Thereafter the

worker is awarded additional pay of 30 percent. Then his 30-percent bonus will already be 39 rubles, or 39 percent of his wage rate. And if the worker gets a bonus of 40 percent, then his bonus based on his wage rate plus additional pay will be 52 rubles or 52 percent of the wage rate, but the permissible ceiling is 40 percent. As performances improve, the problem of maximum bonus rates can be expected to intensify. With the inclusion of the additional pay or allowance in the base, the computation of bonuses for workers paid time wages, and for engineers, technicians and employees, will come up against the mentioned ceiling more and more frequently, because the ceiling applies only to the wage rate or salary in the schedule. There are no problems only in the case of workers paid piece rates, because the ceilings on their premiums are set in percent of their piece-rate earnings.

According to the conditions of the experiment, the additional pay for skillful craftsmanship, and the allowance for higher qualifications may be reduced or revoked when the quality deteriorates. However, this does not apply to worker salaries raised to 250 rubles per month, nor to allowances for enterprise directors in the food, light and local industries, and for employees in the apparatus of the food industry's oblast administrations.

The experiment's conditions permit the enterprises in machine building to use the coefficient of work participation in awarding bonuses for their engineers, technicians and employees. The active use of this coefficient could lead to a situation such that the coefficient assigned to the best workers of a section, shop or department gives them a bonus that exceeds the permissible maximum rate. In the case of workers, the ceiling on bonuses may be exceeded under such conditions. It must be assumed that the further course of the experiment will necessitate finding a proper solution in the case of engineers, technicians and employees as well.

Up to now we have been discussing enterprises and production associations. The changes in how bonuses are paid at the lowest level of production, however, have made it necessary to harmonize with them also the manner in which bonuses are paid at the higher levels of administration. The awarding of bonuses to workers of the all-union and republic industrial associations, and of the union and republic ministries, has much in common with the incentives for enterprise workers, but also certain differences have been established. It will be remembered that the initial base for determining the bonus rates for workers of the aforementioned higher levels of administration is 10 percent of the payroll fund for salaries. Some ministries have proposed to automatically increase the starting base from 10 to 20 percent of the payroll fund. It has been recognized as more prudent to increase the amount of resources for bonuses according to a long-term standard for the fulfillment of three plan indicators: the introduction of new technology, from the actual economic result; the rise of labor productivity, from the amount of actual savings in the payroll fund; and output for export, as a function of the actual amount of the bonuses that the enterprises receive for such output.

Unlike in the case of enterprise workers, a bonus after the completion of the reporting period (assuming, of course, that the basic indicators and conditions to qualify for bonuses have been fulfilled) is not guaranteed by any means to every worker in the apparatus of the industrial associations and ministries.

Only the workers who have distinguished themselves receive bonuses. This sets for the administrations of the industrial associations and ministries the task of determining the actual work contribution of each specialist toward the overall work results.

The rate of the lonus (in percent of the salary) for fulfilling the indicators and conditions of stimulation is not specified in advance. When a subdivision (department, administration, sector, etc.) has fulfilled them, and also any supplementary indicators that might have been set for it, an amount is alloted as the bonus for the entire collective. The chief of the subdivision, jointly with the trade-union buro, then determines the circle of workers who should be offered bonuses, and the rates of their bonuses. Two conditions have been set to provide a stronger incentive to increase the personal work contribution of each worker. First, it has been agreed that as a rule the rate of the personal bonus should not be less than 50 percent of the salary per quarter. If this condition is observed, then the amount of resources available for incentives at a ministry or association is not enough to give equal bonuses to all workers. Secondly, the rate of the bonus for the subdivision's chief (in percent of his salary) may not exceed the actual average rate of the bonuses of the subdivision's workers.

Of course, the system of labor incentives will be perfected in the course of the experiment, and it will become more effective and efficient. This will enable the workers of the five ministries to solve their assigned tasks more successfully.

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LABOR

LABOR OFFICIALS REVIEW BOOK ON AGRICULTURAL WAGES

Moscow SOTSIALISTICHESKIY TRUD in Russian No 4, Apr 84 pp 117-119

[Review by M. Marusin, chief of the Department of Hanpower Utilization in Agriculture, and I. Hal'tsev, candidate of agricultural sciences, senior scientific staff member, Central Scientific Research Laboratory of Hanpower Resources, attached to the RSFSR State Committee for Labor, of book "Progressivnyye formy organizatsii i oplaty truda na sel'skokhozyaystvennykh predpriyatiyakh" [Progressive Forms of Work Organization and Remuneration at Agricultural Enterprises] by I. D. Kurbatov and V. N. Zhurikov, Kolos, Moscow, 1983, 271 pages]

[Text] Under the present conditions, great importance is attached to the widespread introduction in agriculture of progressive forms of work organization and remuneration that can promote an increase of the farm output, parallel with a reduction of its material and labor costs. One such form that best satisfies the present level of the productive forces' development is the collective contract. A number of kolkhozes, sovkhozes and other state enterprises have gained favorable experience of its application. Dissemination of this experience, and its analysis and generalization will help to accelerate the introduction of khozraschet on the kolkhozes and sovkhozes, and to establish a direct relationship between the forms of work organization and labor incentives on the one hand, and the bottom line on the other. The book, which we recommend to the readers' attention for these reasons, generalizes the results of research over a period of many years and is very timely.

Work organization and remuneration are important factors of production. The level of the productive forces' development determines the forms and theoretical principles of the realization of these factors in socialist agriculture. Work organization and remuneration must be perfected parallel with the development of the production assets base, with the rise of the workers' educational, cultural, technical and vocational-training level, and with the progressive changes that are taking place in the composition of the work force by occupations. As we very well know, the development of agriculture's productive forces has undergone radical changes in recent years. The forms of work organization and labor incentives that evolved and gained acceptance in this branch when heavy physical labor of low productivity was the dominant are now retarding the development of social production and the reduction of labor and material costs, because they are based on the individual piece-rate system.

The objectives that the authors of this monograph set for themselves were to investigate the problem of work organization and remuneration in agriculture, with due consideration for the specifics of this branch, and to recommend to agriculture the forms and principles that best meet present-day requirements. We believe that they have been fairly successful in fulfilling their set task. They investigate work organization and remuneration in agriculture within the entire system of processes that are taking place in society's economic and social development, taking into consideration the factors that decisively influence the conditions of farm production. Warning against a stereotyped approach to work organization and labor incentives, I. D. Kurbatov and V. N. Zhurikov emphasize that the choice of a form depends on the specific conditions of each farm.

The reviewed work investigates the problems associated with perfecting work organization under the conditions of agriculture's industrialization, the principles and indicators for evaluating the efficiency of intrafarm work organization, and the peculiarities of work organization under the conditions of interfarm cooperation and agro-industrial integration. The starting point is the theoretical premise that work organization, as a major element of production, is a direct function of the level of the productive forces' development. It is emphasized that the current processes of farm production's industrialization—accompanied by the emergence of new forms of cooperation, further intensification of the division of labor, and qualitative changes in manpower—are creating corresponding changes in the organization of production and work organization.

One cannot but agree with the authors when they write that "under the influence of the progress in science and technology, a system of mutually complementary work collectives is now being formed at the agricultural enterprises. This system is the aggregate of permanent and ad hoc intrafarm subdivisions engaged in a certain production process. They are united by their common final objective: to produce more farm products of better quality, with the lowest possible inputs of labor and capital (pp 10-11). Each farm may have its own system of such collectives, depending on the specific conditions. At the same time, the book emphasizes that in every case such a system must be based on permanent work collectives that are assigned means of production and are responsible for the farm output.

In crop production, for example, the permanent work collectives are the production brigades, and the fully mechanized links. They are assigned land, machinery and other means of production, for a number of years. Their workers are assigned to them permanently. The ad hoc production subdivisions are the harvesting and hauling, sowing and other complexes and work groups that are formed to perform specific types of work. In the authors' opinion, the specialization and concentration of farm production necessitate the formation of work collectives engaged in, respectively, primary production, ancillary production, and the sphere of services. This chapter devotes considerable space to the basic principles that must be observed for the efficient organization of the primary work collectives in agriculture.

The chapter "Forms of Work Organization in Crop Production" sets forth in detail the principles of work organization in brigades, links and mechanized

work groups (or complexes), and it explains the efficient forms of managing brigades, links and work groups (complexes). The authors examine the brigade form as one of the basic collective forms of work organization in crop production that best meets the modern requirements of farm production and scientific work organization. The book demonstrates that the brigade form of work organization helps to solve successfully the economic and social tasks, to develop democratic principles in management, to strengthen labor discipline, to increase creative initiative and comradely mutual assistance, and to develop a communist attitude to work and high moral traits. The factors are substantiated that determine the brigade's organizational form, size, and its composition by trades and skills. The types of production brigades are presented that are widespread in the branches of crop production. Important place in this chapter is devoted to the questions of planning, the application of khozraschet principles, and management in the brigades; and also to questions concerning the establishment of brigade councils, brigade leaders, and their activities.

The monograph's authors devote considerable attention—in our opinion, correctly—to the link form of work organization in crop production. Present—day links consist basically of machine operators, and in most cases they are a form of work organization within brigades. On many farms, however, mechanized links are formed as independent production units. Relying on research results and specific examples, I. D. Kurbatov and V. N. Zhurikov conclude that such links are highly efficient.

The work group form of work organization has likewise become widespread in crop production. In the authors' opinion, it is expedient especially where specialized farm machinery is used, or where the need arises to use a concentration of machines to complete important and urgent farm chores. The book demonstrates that the concentration of machinery in work groups, the deployment of machines in groups, and their flow line method of operation ensure the highly productive use of equipment, shorten the time for the completion of important farm chores, etc. It should be noted that the book discusses also the problems of efficiently combining the brigade, link, and work group forms of work organization.

The monograph devotes close attention to the introduction and widespread application of the contract system of work organization and remuneration in mechanized brigades and links. On examples of how many brigades and links operate on farms differing in their specialization, the authors demonstrate the high efficiency of this progressive form of work organization and of providing labor incentives. They fully substantiate their conclusions that in the collectives that operate on the principle of contracting and employ a job-contract-plusbonus system of remuneration, with periodic advances, the average yields of farm crops are 10 to 20 percent higher, the labor productivity is higher by 15 to 30 percent, and the output per 100 rubles' worth of machinery is 5 to 8 percent higher than in the subdivisions that do not operate on the principle of contracting.

The reviewed monograph devotes considerable space to progressive forms of work organization in livestock production. There is a separete chapter on this subject. The authors point out that in agriculture the progress in science and technology has penetrated more and more thoroughly in recent years

also livestock production, creating corresponding changes in the forms of work organization and economic incentives for the workers employed here. On the basis of their own research, and by generalizing the results of many scientific institutions and the experience of the country's best farms, I. D. Kurbatov and V. N. Zhurikov recommend the most progressive collective forms of work organization, for practical application in all basic branches of livestock production, under different forms of production organization and different methods of keep.

Investigating the work schedules in livestock production, the authors come to the conclusion that in dairy farming the most progressive work schedule is a two-shift system with a five-day workweek and two days off; and that in finishing and fattening cattle a one-shift, two-work-cycle daily work schedule is the most efficient. This conclusion appears to be correct.

It is very regrettable that this chapter does not investigate the problems of work organization and labor incentives in livestock production based on the principles of a collective contract. Yet, in recent years this progressive form has been spreading also in the branches of livestock production, with good results. One would hope that this shortcoming will be eliminated in the course of further work on this problem, perhaps when preparing the next edition of this book.

The monograph's final chapter is devoted to the questions of remuneration and labor incentives in agriculture under present-day conditions. Despite the considerable diversity of the forms and principles of remuneration in agriculture, the reviewed work examines these problems fairly thoroughly, on a solid theoretical foundation. Investigating the basic directions in which labor incentives are being perfected, the authors rely on data obtained by experimenting with different variants of the link between pay and bonuses on the one hand, and the production results on the other. They believe that the widespread application in agriculture of the job-contract-plus-bonus system can give the workers the greatest incentive to increase the farm output, improve the efficiency of production, uncover the internal reserves and adopt stepped-up production plans. At the same time it is emphasized that the job-contract-plus-bonus system is the most effective when combined with periodic advances. Noteworthy is the practice of specifying unit rates for the output under this system of remuneration.

The authors believe that the application of the job-contract-plus-bonus system is fully warranted where the output (milk, meat, eggs, etc.) is obtained throughout the year. The method of setting unit rates for the output is demonstrated also for this system of remuneration. A number of proposals are offered for perfecting the mentioned systems of remuneration. The book reveals the advantages of the new system under which bonuses for sovkhoz workers are paid from a single source, the economic incentive fund.

The monograph contains a large volume of specific factual information on the questions of work organization and remuneration, which enhances its practical interest. At the same time, we believe, it would have been better to concentrate in a single chapter the problems of work organization and remuneration by the principal branches of farming. The book would have gained by treating

more broadly the questions of labor incentives in cases of a collective contract. The monograph has left these questions somewhat obscure.

In conclusion we would like to emphasize once again the practical significance of the reviewed book. Agricultural specialists on the kolkhozes and sovkhozes, and at other agricultural enterprises and the rayon agricultural administrations will find the book a useful reference. It is of interest also to scientists and teachers of agricultural higher educational institutions and tekhnikums, and of rural vocational-technical schools.

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